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ABSTRACT

Puerto Rico's economic growth has accentuated the need for a larger vocational education program capable of handling the demand for occupationally-trained personnel. The Area of Vocational and Technical Education (AVTE) operates within the general structure of the Puerto Rico Department of Education, and AVTE programs must be adapted to the growth of and changes in occupational requirements. The Department of Education should adjust its accounting, personnel, purchasing, and communication procedures to better respond to the needs of AVTE. This report documents a study on administrative utility analysis and vocational education programs for AVTE. Recommendations are made for changes in organizational structure, planning and budgeting, systems and procedures, personnel policies and salaries, and other areas affecting the management and organization of Puerto Rico's vocational education programs. Recommended organization charts are included. Related documents are available as VT 019 715 and VT 019 716. (MF)

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ADMINISTRATIVE UTILITY ANALYSIS

PUERTO RICO DEPARTMENT OF EDUCATION
AREA OF VOCATIONAL AND TECHNICAL
EDUCATION

1971

VT 019717

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ADMINISTRATIVE UTILITY ANALYSIS

PUERTO RICO DEPARTMENT OF EDUCATION
AREA OF VOCATIONAL AND TECHNICAL EDUCATION

1971

PMM&Co. Peat, Marwick, Mitchell & Co

The research reported herein was performed pursuant to a grant under the Vocational Education Amendments of 1968. Contractors undertaking such projects under Government Sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions do not, therefore, necessarily represent official Office of Education position or policy.

ADMINISTRATIVE UTILITY ANALYSIS

Department of Education
Area of Vocational and Technical Education

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PEAT, MARWICK, MITCHELL & CO.
G. P. O. BOX 4089
SAN JUAN, PUERTO RICO 00936

August 12, 1971

Dr. Ramón Mellado
Secretary of Education
Department of Education
Commonwealth of Puerto Rico
Hato Rey, Puerto Rico

Dear Dr. Mellado:

We have completed our study on Administrative Utility Analysis and Programs of Vocational Education for the Area of Vocational and Technical Education of the Department of Education. The attached report includes the complete documentation of the engagement.

BACKGROUND

Presently, the Area of Vocational and Technical Education is headed by Dra. María Socorro Lacot, Assistant Secretary for Vocational and Technical Education. Educational services are offered to young and adults in seven vocational schools, eight high schools with vocational departments, two technological institutes and 376 secondary schools with vocational programs. Basically, the A.V.T.E. is structured in eight programs managed by Program Directors and the educational services are carried out at three levels: central, regional and school districts.

The A.V.T.E. is facing a compound problem of having an increasing student population and number of programs to implement with a limited budget at its disposal. This situation necessitates a continuing effort at searching

alternative uses of its funds in an attempt to derive the most effective utilization from the services it has at its disposal.

Being aware of the continuous need to apply modern administrative management techniques to cope with the expansion in the scope of the vocational programs the Department of Education decided to hire the services of Peat, Marwick, Mitchell & Co. to conduct an Administrative Utility Analysis of the Area of Vocational and Technical Education.

OBJECTIVES

The principal objectives of the Administrative Utility Analysis were:

- Indication of areas of over vertical administrative pyramiding.
- Optimum utilization of available human resources.
- Identification of areas of activity duplication.
- Determination of new services and required personnel to adequately administer those services.
- Improvement and acceleration of administrative procedures such as: purchasing, budgeting preparation and hiring of personnel.
- Provision for more active participation in the administration of the Program from the regional and local levels.

METHODOLOGY

We conducted the study by reviewing reporting relationships, position responsibilities and the nature and characteristics of the various vocational programs conducted by the A.V.T.E.

Our fact-finding was accomplished through in-depth interviews with management personnel, questionnaires submitted to all management positions up to the position of department heads and visits to a number of educational regions.

Conclusions were drawn and alternative recommendations were developed. The results of our study are summarized in the following paragraphs.

SUMMARY OF RECOMMENDATIONS

The recommendations set forth in this report should be implemented in light of the economic and budgetary conditions of the Program, federal funds available and availability of personnel.

The following is a summary of our recommendations. The recommendations are classified according to the following groups:

- Organizational Structure
- Planning and Budgeting
- Systems and Procedures
- Personnel Evaluation and Policies
- Salary Structure
- Personnel Requirements
- Coordination with other Government Agencies
- Legislation

(a) Organizational Structure

1. Restructure Central Organization to provide the following area-level positions:

- Assistant Secretary of Vocational and Technical Education
- Assistant to the Assistant Secretary of Vocational and Technical Education
- Executive Office consisting of:
  Executive Assistant
  Assistant for Programs
- Head of Interagency Relations and Promotion
- Director of Instruction
- Head of Administration

. Head of Information Systems

. Head of Planning, Budgeting and Evaluation

. Head of Vocational Research and Curriculum Development

. Head of Professional Training

The five Office Heads and the Director will report directly to the Assistant to the Assistant Secretary of Vocational and Technical Education.

2. Establish and executive office attached to the Office of the Assistant Secretary. The executive office should have the following members:

. Executive Assistant

. Assistant of Programs

3. Establish an office for Interagency Relations and Promotion, attached to the Office of the Assistant Secretary, with prime responsibility for the improvement of communications and relations with government agencies, the community and other institutions.

4. Distribute the present functions and responsibilities of the Research Coordinating Unit among the following units of the proposed organization:

Vocational Research and Curriculum Development Office:

. Vocational Research

. Curriculum Development

Professional Training Office:

. Coordination of Teacher Training

. Coordination of Researcher Training

Information Systems Office:

. Compilation of Educational Statistics

. Dissemination of Research Information

. Maintenance of a Research Library

Vocational Guidance Program:

. Follow-up of Vocational-Technical Graduates

5. A central clerical pool should be established under the supervision of an experienced secretary and within the scope of responsibilities of the

Office Services Unit. The pool should be formed by selecting a specified number of Secretarial personnel from the individual program units. The recommended number to be selected from each program is specified in the body of the Report.

6. Organize ten program units headed by Program Directors who report directly to the Director of Instruction. The recommended program units are:

- Industrial Arts
- Health Occupations
- Vocational Industrial Education
- Technical Education
- Vocational Agriculture Education
- Home Economics Education
- Business Education
- Distribution and Marketing Education
- Vocational Guidance
- Special Programs

The present and recommended organization charts for these Programs are included in Chapter IV - Recommendations Organizational Structure.

7. Restructure the Regional Organization to incorporate the following executive positions:

- Assistant Regional Director of Vocational-Technical Education
- Assistant Regional Director of Administration
- Coordinator for Community Relations and Promotion

8. Provide the following clerical positions at the Regional level:

- Budget and Statistics Technician
- Coordinator for Purchasing, Maintenance, and Contractual Services
- Coordinator for Office Services and Personnel

The Coordinator for Office Services and Personnel should have direct supervision over the secretarial pool.

9. Increase the number of Area General Supervisors for Vocational Programs by five Supervisors. Specific increases by Program are included in Chapter XI - Budget Requirements.

10. Increase the number of General Supervisors for Vocational Programs at Regional level by 44 Supervisors. Specific increases by Program are included in Chapter XI - Budget Requirements.

11. Increase the number of Coordinators for Vocational Programs at Regional level by six Coordinators. Specific increases by Program are included in Chapter XI - Budget Requirements.

12. Restrict the use of professional and administrative transitory positions at central and regional level to those positions which will not be permanently required. Create regular positions for personnel needs which have been identified as continuing.

13. Further studies should be conducted to determine the feasibility of establishing multi-program training for Regional General Supervisors with the purpose of qualifying Supervisors in two or more Vocational-Technical Programs. If this cross-training can be achieved, it will result in improved utilization of Regional Supervisors since in a single visit to a school they could evaluate the progress of several Programs.

(b) Planning and Budgeting

1. We recommend that the preparation of progress reports of different Programs be removed from under the responsibility of the Planning and Educational Development Unit. Each Program Director should prepare a monthly report of operations.

2. The responsibility and the roles of the various parties involved in the preparation of the budget should be stated more clearly.

3. Budget procedures should provide more participation to Regional Directors and General Supervisors and include their inputs about Regional needs.

4. The budget format should be expanded to include a manning table or other device indicating the number of approved budgeting positions for each salary account.

5. A systematic review process should be established through which each reserve and expenditure item in the budget is analyzed and adjusted to acknowledge changes in federal grants.

6. The A.V.T.E. should develop an integrated Planning and Budgeting System based upon clearly stated goals and objectives. The elements of a well-developed, properly integrated Planning and Budgeting System are included in the body of the report under the Integrated Planning and Budgeting System, Chapter VI and Appendix A.

7. The A.V.T.E. should request to the Bureau of the Budget to consider the incorporation of fixed operational expenses into the state budget to avoid the possibility of eliminating a program due to lack of federal funds.

(c) Systems and Procedures

1. Purchasing procedures should be reviewed to speed up the purchasing-to-delivery cycle. We recommend to reduce the number of approvals and to decentralize the purchases at the Regional and school district levels.

2. A Systems and Procedures Unit should be established in the central organization structure under the Director of Information Systems. This unit will be responsible for the control of forms within A.V.T.E. and will establish proper coordination with the Planning Division of the Department of Education.

3. Model proposals and check lists should be developed to simplify the proposal preparation procedure and to reduce the time and number of executives involved in its revision.

4. Modify the present system of approvals for personnel appointments by establishing lower approving levels. The proposed system is shown in the body of the Report under the Personnel Section of the Systems and Procedures Chapter. The proposed approval system will simplify the appointment process, reduce its cycle time, and improve feedback of information.

5. Review the system of payments to part-time teachers eliminating approvals not required for fiscal control and streamlining the feedback of information to allow prompt correction of errors and minimize the delay in processing.

6. A Policy and Procedures Manual for A.V.T.E. should be developed to better guide operating personnel in the accomplishment of their tasks.

7. The present practice of sending internal correspondence through all levels of supervision until it reaches the intended recipient should be changed. Communications should be sent directly to the intended receiver with information copies to the different management levels.

8. A preregistration program for Vocational-Technical courses should be established to insure better planning and course information coverage for potential students. The elements of the proposed preregistration system are included in the body of the Report.

(d) Personnel Evaluation and Policies

1. Requirements for educational work experience in a vocational area should be discontinued for admistrative positions not directly related to the teaching or immediate supervision of the progrmas.

2. Continued attention should be given to "professional leave to study with salary." The possibility of increasing the number of this type of leaves should be considered.

3. Leaves and promotions affecting personnel assigned to special projects should be carefully scheduled so as to minimize impact on the Project.

4. A.V.T.E. should establish its own training programs to supplement the present training programs (Professional Leave to Study with Salary, and Summer School). A Professional Training Office should be created to organize pre-service, in-service and continuing education training programs.

5. A formal written personnel evaluation procedure should be developed and implemented in the A.V.T.E.

(e) Salary Structure

A.V.T.E. should develop a new salary scale which will enable it to successfully compete with other government agencies, business, and universities in attracting and retaining qualified managerial and administrative personnel.

Considerations which should be taken into account in the development of a revised salary scale are included under Chapter IX - Salary Structure.

(f) Personnel Requirements

Staffing levels at the central and regional levels should be revised in accordance with the recommendations listed in the Personnel Requirements Section of the Report.

A comparison with the present staffing levels indicating the net increase of decrease of personnel in each position is included in Chapter XI - Budget Requirements.

(g) Coordination with other Government Agencies

1. An in-depth study of the needs, present facilities, binding contracts and future expectations of education in Health-related occupations as offered by the Department of Health and the Department of Education should be conducted.

This study should focus on strengthing the coordination of resources of both Departments for training personnel in Health-related occupations.

2. A.V.T.E. should investigate and analyze the objectives of the Vocational Agriculture Program as related to those of the other government agencies involved in this area.

This study should consider the possibility of coordinating efforts and resources which could effectively fulfill the needs of the agricultural sector.

(h) Legislation

1. The possibility of providing financial aid to students pursuing regular Vocational-Technical courses should be investigated.

2. The salary scale of the Area of Vocational and Technical Education should be reviewed.

* * * * *

We were most pleased to be able to participate in this important project, and enjoyed our association and the cooperation received from your management personnel during the study.

Yours truly,

I - INTRODUCTION

THE NEED FOR VOCATIONAL EDUCATION

Vocational and Technical Education has become an area of extreme relevance in a world of ever changing techniques and developments. There is a need for an increased availability of Vocational Programs many times the current level and for Programs that go beyond the current Vocational Education Curricula.

In today's complex society, jobs are becoming increasingly scarce for the untrained and unskilled. Puerto Rico's economic growth has accentuated the need for a larger Vocational Education Program capable of handling the demand for occupational-trained personnel.

The most pressing need is for high school and post high-school two-year Vocational and Technical Programs. These programs must be responsive to the needs of young people who are presently neither attending schools nor employed. To make effective use of this young people, the vocational school system should provide them the skills which are in short supply and the skills for which the demand is apparently growing.

COVERNMENT AWARENESS

The need for Vocational and Technical Training Programs has been recognized by the Covernment in Puerto Rico. There is an increasing emphasis on expanding the Vocational Training Programs.

The Area of Vocational and Technical Education received increased attention with the approval of the Vocational Education Act of 1963. A formalized and structural program was implemented to serve the needs of the community.

The Vocational Amendments of 1968 created an atmosphere of awareness at the federal and Local levels for increased attention to Vocational and Technical Education. This was accomplished by:

- Creating a National Advisory Council on Vocational Education with 21 members appointed by the President.

- Requiring each participating State to submit an Annual Plan, a Five-year Plan and an Administrative Policies and Procedures Plan.

- Increasing federal funding and federal controls. The Federal Government has provided funds for the construction of new schools, for purchase of training equipment, designing of new curriculum and in the determination of effectiveness of vocational school programs. Yet Vocational and Technical Education has been lagging behind the increased needs for technically trained personnel required by Puerto Rico economic growth and new industrial technical requirements.

VOCATIONAL EDUCATION
OPERATIONAL REQUIREMENTS

The Area of Vocational and Technical Education (A.V.T.E.) operates within the general structure of the Department of Education. The regular and vocational programs are both concerned with the educational process of Puerto Rico, to better prepare today's youth to face tomorrow's world of work; however, they offer their services to two separate groups of students which have different needs. Some of the differences between the two educational areas are as follows:

- Type of courses offered
- Kind of student population
- Duration of courses
- Equipment and materials required

The A.V.T.E. offers occupational education rather than general knowledge type of education. Occupational education, depends to a large extent, on current technological advancements and is subject to rapid change.

The kind of student that takes occupational courses is one who wishes to learn a specialized occupational skill and to be able to leave school equipped to meet the challenge of the world of work.

Programs in the A.V.T.E. have to be adapted to new developments and changes in occupational requirements. The duration of a program may vary from four months to several years depending on the skills required.

When a new program is started in Vocational and Technical Education, it generally requires special equipment and materials; the need for specific machinery is dictated by the current technological conditions.

THE A.V.T.E.'S DYNAMIC ENVIRONMENT

The Area of Vocational and Technical Education has different operational needs from the rest of the Department of Education. The dynamic nature of the Vocational Education process should be fully recognized to insure the achievement of its operational goals. There is a relatively short time span between the recognition of the need for a specific program and the output of trained students. Once it is established that there is a need for a "certain" specialized training, the Vocational Education process starts:

- A proposal must be written clearly stating the objectives of the Program to be established, the manner in which the Program will be carried out and a detailed account of what the Program entails. Approval by the Secretary of Education is given to the proposal.
- Appropriate facilities must be secured.
- A qualified individual must be recruited to teach the course.
- Equipment and supplies must be purchased.
- Students must be selected for the course.

This illustration is a simplification of the actual process, but it depicts the quick actions and decisions with which A.V.T.E. administrators are faced with.

The operational efficiency of the A.V.T.E. is then impaired by operating in an environment that does not recognize the shorter operational cycles of the

vocational education administrative processes. The Department of Education should adjust their accounting, personnel, purchasing and communication procedures to better respond to the needs of A.V.T.E.

FEDERAL FUNDS

The Bureau of the Budget relies heavily on federal funding to cover fixed operational expenses for certain A.V.T.E. Programs. Any changes in the flow of federal funds generates an operational problem in the Vocational Program affected.

It then becomes more difficult for planning, hiring and retaining qualified personnel.

The Bureau of the Budget should consider the incorporation of a larger percentage of fixed operational expenses into the Commonwealth Budget to avoid the possibility of eliminating a Program or affecting seriously its operations through the lack of federal funds.

GROWTH IN VOCATIONAL ENROLLMENT

The number of Programs offered by the A.V.T.E. and the student enrollment has grown rapidly. Currently over 100,000 students are enrolled in the different Vocational Programs.

Yet the A.V.T.E. organization structure, personnel and budget has not kept pace with this growth. Currently the need for additional personnel is hindering not only the development of new Programs, but also the proper operation of the present ones.

CONCLUSION

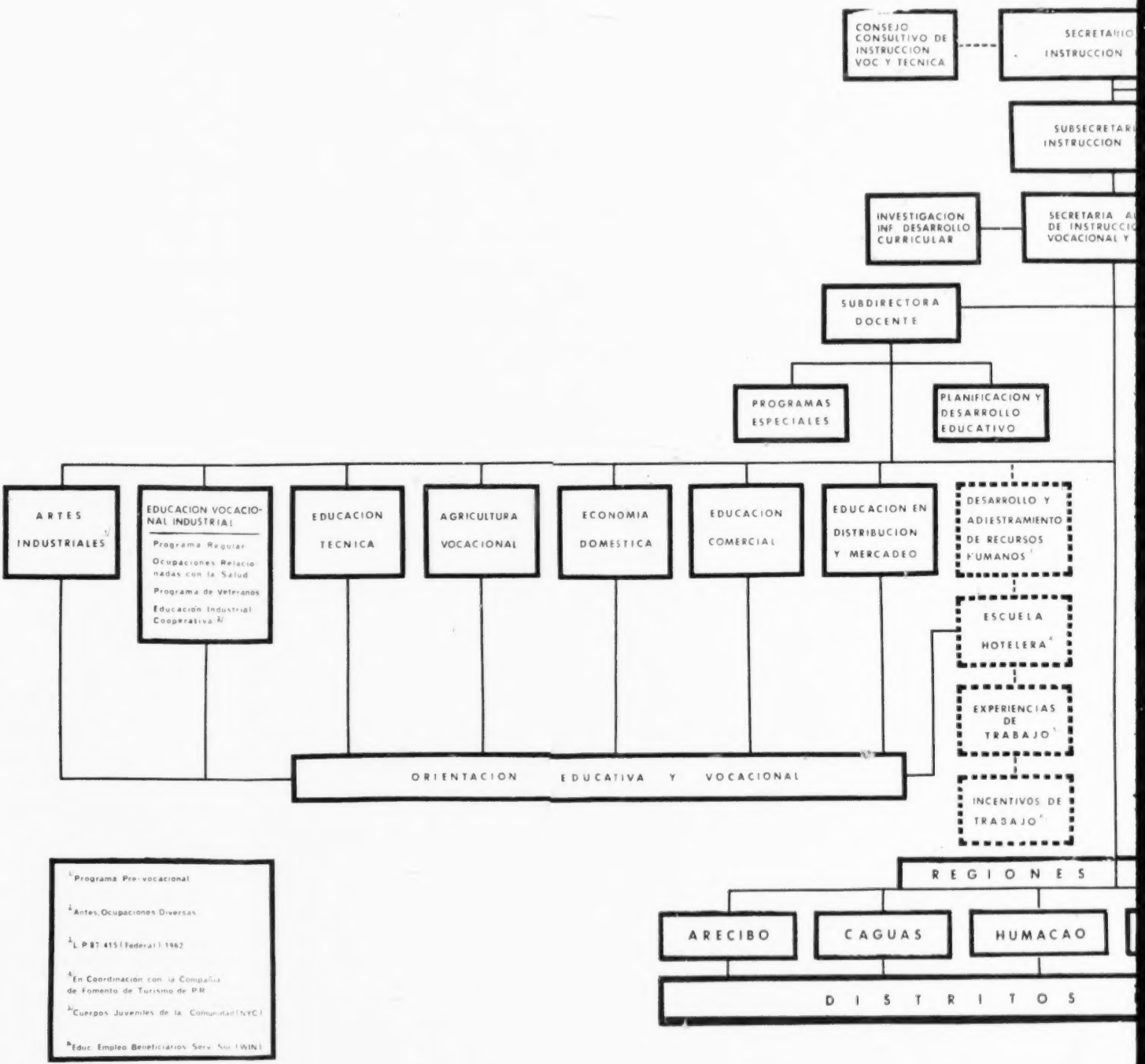
The role that Vocational Education has to play in our environment of industrialization and growth is of primary importance to the proper development

and progress of the economy as a whole. The nature of Vocational Education goes hand-in-hand with the nature and stage of industrialization of the area it provides services to. Hence, to properly fulfill its educational mission the A.V.T.E. should be able to grow and adjust to the different technological requirements of Puerto Rico.

The A.V.T.E. is currently providing a basic socio-economic service to Puerto Rico. However, its financial and personnel requirements should be attended and its operational relationship with the Department of Education should be revised to insure its effectiveness and continued growth.

ORGANIGRAMA

INSTRUCCION VOCACIONAL Y



1/ Programa Pre-vocacional

2/ Artes Ocupaciones Diversas

3/ L. P. B. T. 415 (Federal) 1962

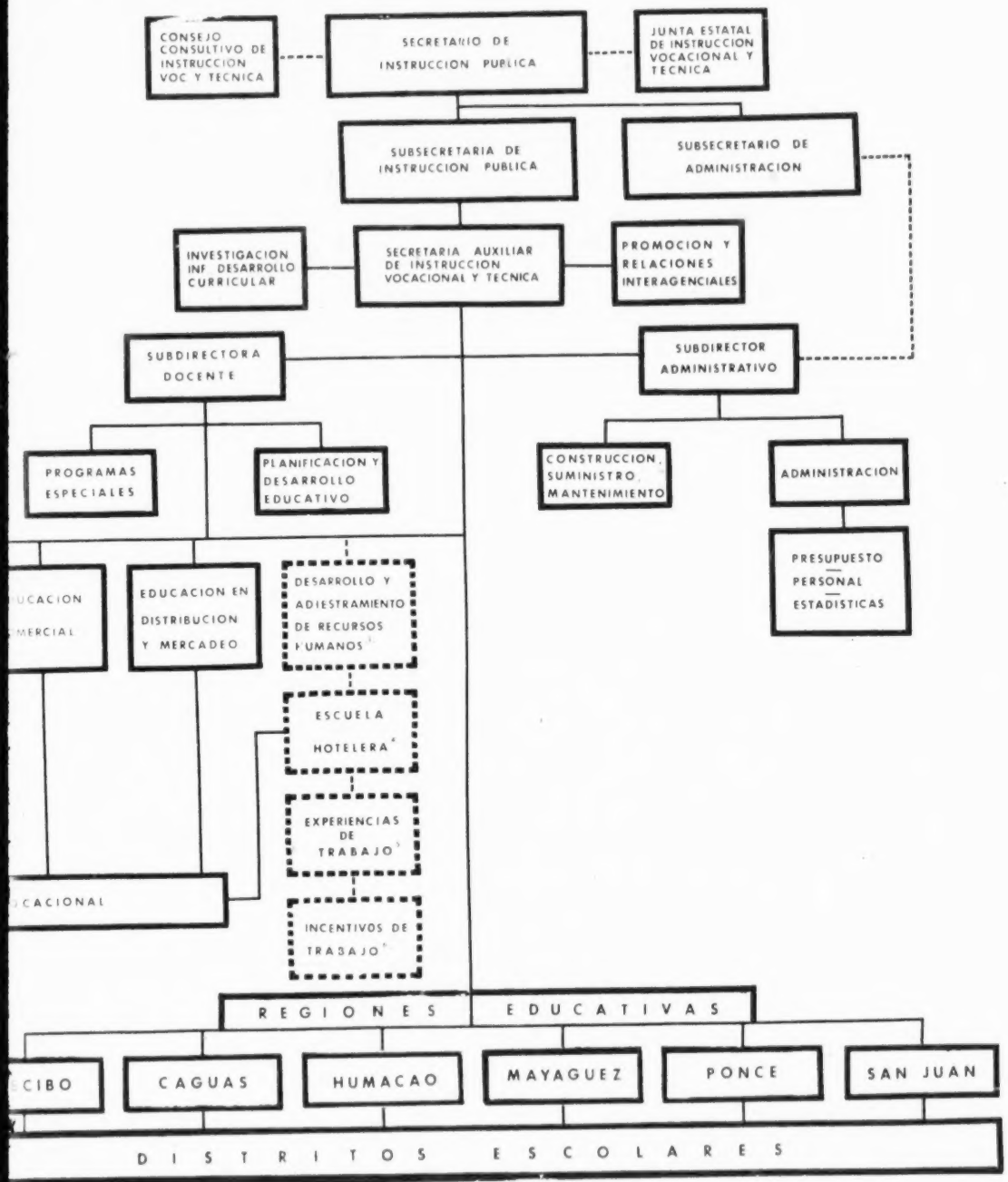
4/ En Coordinación con la Compañía de Fomento de Turismo de P.R.

5/ Cuerpos Juveniles de la Comunidad (CYC)

6/ Educ. Empleo Beneficiarios Serv. Soc. (WIN)

NIGRAMA

CACIONAL Y TECNICA



II - PRESENT ORGANIZATION STRUCTURE

INTRODUCTION

Implementation of a viable organization structure is an essential step in the development of effective Vocational Programs and efficient administrative operations.

Our review and analysis focused upon the upper administrative echelons of the Area of Vocational and Technical Education of the Department of Education. Essentially, this includes the levels of management from the Assistant Secretary of Vocational and Technical Education through the level of General Regional Supervisor for the various Vocational fields.

Following in this section is a description of the present upper organization at the central and regional levels and a summary of our findings and conclusions regarding the current structure.

OVERVIEW OF THE PRESENT ORGANIZATIONAL STRUCTURE

Central Organization

The existing upper level organizational structure of the Vocational and Technical Education Area is depicted on the facing page.

The Area is directed by an Assistant Secretary who reports directly to the Undersecretary of Education in regard to the educational aspects of the Program. For the overall administration of the A.V.T.E. reporting is channeled directly to the Secretary of Education who is also the Executive Officer of the Commonwealth Board for Vocational Education. Two major functions exist within the Area: the Administrative Function, and the Instructional Function. Each function is headed by a Director who reports directly to the Assistant Secretary.

The Instructional Director has responsibility for six Vocational Programs and for an Industrial Arts Program, Vocational Guidance Program,

a Student Assistance Program and a Special Programs Unit. A Planning and Educational Development Unit is also included under the Instructional Director's span of control. Each of these Programs and Units is headed by a Director who is assisted in his task by a staff including Assistant Directors, General Supervisors and other administrative and clerical personnel.

The Director of Administration heads two administrative units. One is responsible for purchasing, construction and maintenance liaison with Department of Education level units. The other unit is responsible for personnel, budget and fund control functions. The Director of Administration also acts as Interim Director of the Area of Vocational and Technical Education in the absence of the Assistant Secretary.

There are two staff units reporting directly to the Assistant Secretary. One unit is responsible for information, educational research, teacher training and curriculum development coordination. The second unit, staffed by one person, is responsible for promotion and interagency relations.

Regional Organization

Under the Department of Education's Decentralization Plan, implemented approximately four years ago, Puerto Rico was divided into six educational regions. Each region in turn was subdivided into school districts composed of elementary, secondary and vocational schools.

Each region is headed by a Regional Director with the responsibility for all Academic and Vocational Education Programs within that region. The operation of the Programs is managed through the District Superintendents, however, the Regional Director provides technical assistance and supervision through a staff of General Supervisors assigned directly to his office. Usually there is one General Supervisor for each Program although in some regions, due to the size of the particular program, there may be two.

ORGANIZATIONAL STRUCTURE

Procedure Followed

During the course of our review, we examined the existing Vocational and Technical Education organizational structure and reporting relationships at area, program, and regional levels. Position description questionnaires were prepared and distributed to key personnel. In-depth interviews were conducted with all program and administrative unit heads and with selected Regional Directors and General Supervisors working at Regional level. Interviews were also conducted with the Assistant Secretaries for Personnel, General Services, and Finance, and with the Executive Assistant to the Assistant Secretary of Planning and Educational Development. A summary of the findings and conclusions resulting from our study follows:

Central Organization

1. The organizational structure depicted in the organization chart at the time the study was conducted had not been fully implemented yet. Most of the Program Directors indicated that they reported directly to the Assistant Secretary instead of the recently appointed Director of Instruction who was also acting as Head of the Technical Education Program. A total of 16 persons indicated that they report directly to the Assistant Secretary.

2. In examining the replies received from 12 Administrative Unit Directors that were requested to indicate the degree of supervision received by them, we find the following:

- Two indicated that their work is reviewed and verified by their Supervisor and that they used prescribed procedures and methodology.

- Eight indicated that they discussed the distribution of work, work plan, duration of work and problems with their Supervisor and that they could develop their own procedures and methods.

. Two indicated that they work independently and may refer problems, final conclusions and recommendations to the Supervisor.

3. Approximately 50% of the administrative unit Directors indicated that they spent anywhere from 25% to 50% of their time in direct supervision of their unit.

4. To provide and executive succession capability for individual programs within the Area. The prevailing approach used by Program Directors is that of assimilation of knowledge through prolonged exposure to the Unit's operating characteristics.

5. Transitory positions are being used to augment Program professional staffs which for reasons of Commonwealth budget limitations are manned below the required level. Approximately 117 transitory positions now exist within the central level of the Area of Vocational and Technical Education, including academic and classified positions.

Program Level

This Section of the Report covers a brief description of the present organizational structure at the program level, followed by a listing of the main weaknesses encountered. At the end of this Section is a narrative summary of conclusions covering our findings at the Area and Program level. The recommended organization structure for each Program is included in Chapter IV of this report under subheading "Program Administration."

Industrial Arts

Present Structure

At the central level the industrial arts Program is managed by a Program Director with a supervisory staff of three Assistant Directors, one General Supervisor and two Curriculum Technicians.

In examining the duties and responsibilities, we find that:

- The Program Director spends approximately 60% of his time in activities that include preparation of reports, budgets, work plans, correspondence, attendance to various meetings, review of curriculum material prepared by Curriculum Technicians or his staff and in communicating with his Field Supervisors on matters related to purchasing, budgeting and special activities.

- One of the Assistant Directors is responsible for purchasing, construction of new facilities and budgeting. The functions of the other two Assistant Directors involved curriculum development and teacher training.

Vocational Industrial Education

Present Structure

Vocational Industrial Education (V.I.E.) is composed of four subprograms each headed by a Director. The Subprograms within V.I.E. include Manpower Development and Training, Health Occupations, Work Incentives, and Trades and Industries. The present structure of the Subpregrams is described in the following paragraphs.

Trades and Industries

This subprogram - the largest in V.I.E. is headed by a Director, and is divided into five units, each headed by a Coordinator. These are:

- Regular Program
- Veterans Program
- Special Program
- Cooperative Program
- Curriculum and Teaching Materials Development

These units - with the exception of the last one - are organizationally oriented towards the individual segments of the student population which they serve. Basically, student training for most skills, is offered through each of

the first four units. The part which may change is the duration or schedule of training. Course offerings in these four categories usually utilize the same physical facilities. The Director of Trades and Industries has grouped secretarial personnel into a pool serving the administrative positions within the Program.

Manpower Development and Training (M.D.T.A.)

M.D.T.A. is headed by a Director with a staff consisting of an Assistant Director, three General Supervisors, and other clerical and support personnel.

The present organizational structure within M.D.T.A. has not changed in several years; however, no organization chart depicting the structure of the Subprogram and identifying the functions of the supervisory team had been prepared.

Health Occupations

The Director of Health Occupations is assisted at the central level by a Supervisor from M.D.T.A., a Supervisor from the Work Incentives Subprogram, and a Supervisor who is assigned to school accreditation work. There is also a Coordinator for courses of Pharmacist's Assistants and a Supervisor for a special project for training Medical Emergency Technicians.

At the local level the Director supervises the teachers personally or through the Regional General Supervisors serving in the Trades and Industries Subprogram. An exception to this is the Ponce Region in which there is a Regional Supervisor of Health Occupations.

Work Incentives (W.I.N.)

Supervisory positions at the central level consisted of that of Director and Assistant Director. The Director, who was appointed to his present position late in 1970, oversees the vocational aspect of W.I.N. The Assistant Director concentrates on the academic aspect of the Subprogram.

Technical Education

Present Structure

The Technical Education Program structure at the central level has two supervisory positions neither of which is presently filled. Direction of the Program is being carried out on a part-time basis by the present Assistant Director of Instruction.

Analyzing the replies to the position description questionnaire and to the questions in our interview, we find that the position of Supervisor of Technical Courses supervises the positions of Director of the Technological Institutes of San Juan and Ponce. These positions are the logical source for filling the position of Director of the Technical Education Program; however, we find that the present salary structure has a lower salary range for the Program Director than for the Director of a technological institute. This salary condition presents a major obstacle in staffing key positions at the central level.

Vocational Agriculture Education

Present Structure

At the central program level the supervisory staff consists of a Director, three Assistant Directors and two General Supervisors. The two General Supervisors were appointed in January, 1971. There is also a Curriculum Technician and three secretaries assigned to the central program staff.

At this time, the Program Director spends approximately 45% of his time in supervisory functions. He states that this is too high and will attempt to decrease this to 25% or 30% through more delegation to his Assistant Directors and General Supervisors.

Functions of the Assistant Directors and General Supervisors are defined in general terms such as:

- Coordination of Program for specialized schools
- Budget, equipment purchases, school facilities
- Future Farmers of America
- Teacher training and accelerated courses
- State-level coordination of adult phase of the Program

The Program Director plans to further reinforce the central supervisory staff and delegate supervision activities to his assistants so that he may concentrate on Program administration.

Home Economics Education

Present Structure

Both phases of the Program - Homemaking Education, and Education for Gainful Employment are administered by a central program staff consisting of a Program Director, three Assistant Directors and two General Supervisors. There are two Curriculum Technicians and four secretaries attached to this staff.

Supervision responsibilities are distributed among Assistant Directors on the basis of student population served by the Program (i.e., youths out of school, adults, youths in school, etc.). One of the Assistant Directors acts also as the Commonwealth-level advisor of the Future Homemakers of America - a student organization.

The Director currently spends approximately 40% of her time in general supervision of the Program with the remaining going to planning, work assignment, communication, and research.

Business Education
(Commercial Education)

Present Structure

The Business Education Program is administered by a Program Director who is assisted by four Assistant Directors and a General Supervisor. The

Program also has two Curriculum Technicians and a secretary at the central level. Two of the Assistant Directors and the Curriculum Technicians are occupying transitory positions funded by federal government grants.

Distribution and Marketing Education

Present Structure

This is a growing program that has practically doubled the number of teachers during the last year. It is administered by a Program Director and two General Supervisors. The Program has also a Curriculum Technician and secretarial support at central level.

As a result of this growth, functions and responsibilities need to be clarified and distributed among the central supervisory group. The Program Director and both Supervisors attempt to keep abreast of all Program developments and to participate in all problem solving and decision making.

Vocational Guidance

Present Structure

The Director is assisted in the supervision of the Program at the central level by three Assistant Directors. The central staff has also three Curriculum Technicians and two Supervisors acting as Project Coordinators who occupy transitory positions.

The Assistant Director's functions have been assigned on the basis of the segment of the student population served. Basically, one Assistant Director is responsible for guidance to unemployed youths in public housing projects, another is responsible for guidance in vocational schools, and the third is responsible for guidance at the elementary level and in rural areas. Other functions performed by the Assistant Directors were defined in general terms.

Neighborhood Youth Corps (N.Y.C.)

Present Structure

This is the only Program within the Area of Vocational and Technical Education which is wholly supervised from the central level. No Regional Supervisors exist as in the case of other Programs. This Program covers the regular and vocational student population.

N.Y.C. has a Director, an Assistant Director, and a General Supervisor in a direct line relationship. Field operations are supervised through four General Coordinators who are responsible for certain geographical areas of Puerto Rico.

There are other personnel in a staff capacity at the central level with administrative, statistical, guidance and compensatory education responsibilities.

Special Programs

Present Structure

This is a small administrative unit consisting of a Director and two assistants. The Unit's function is to coordinate with regular vocational programs and other agencies in the development of special educational projects funded through Part D of the Vocational Amendments of 1968.

The responsibilities for development of projects for the disadvantaged and the responsibilities for development of projects serving handicapped persons are assigned to the assistant to the Director respectively. The Unit Director retains responsibility for promotion, coordination of evaluation, making recommendations to the Assistant Secretary on selection of project proposals and for other examplary projects not falling within the above categories.

SERVICE UNITS

Planning and Educational Development

This is a one-man unit charged with two main responsibilities:

- Assisting Program Directors in the development of the Annual Plan and assembling the Plan.
- Evaluating progress of planned programs during the Plan's effective year.

Planning activities in the present form have been carried out in the Area of Vocational and Technical Education for approximately two years. The present unit was created in mid-1970.

Assistant Director of Education

This position, has recently been filled and the incumbent continues to perform the functions of her previous position due to the difficuly of finding a suitable replacement. This has resulted in the incumbent being unable to take over all duties and responsibilities of her new position.

The position reports directly to the Assistant Secretary and its main function is to assist Program Directors in improving teaching methods and effectiveness at all levels. The incumbent indicates, however, that the Program Directors will continue to report to the Assistant Secretary in some matters.

Administration Unit

The Administration Unit reports to the Assistant Director for Administration and performs the following functions:

- Preparation of annual budget for vocational programs.
- Reporting of funds assigned to vocational programs, funds used, and encumbrances.
- Coordination of personnel appointments within the Area of Vocational and Technical Education.

The unit is staffed by a Supervisor, a Budget Technician, an Accountant, a Personnel Clerk, and two secretaries.

At the present time each major unit function is assigned to a unit employee. These functions have counterparts in the centralized units at department level in the areas of personnel and finance, and in the budget office.

Construction, Supplies, and Maintenance

This Unit at the time of our review consisted of a supervisor and a secretary. Recently another employee was added to work exclusively in the functions of purchasing and supplies.

The Unit reports to the Assistant Director of Administration. Its function is to coordinate the design and construction of Vocational facilities (schools, classrooms, shops, etc.) with the department level school planning section and to screen and expedite equipment purchases for the various vocational programs.

The incumbent allocates approximately 40% of his time to facilities construction coordination, and another 40% to purchasing activities.

Assistant Director of Administration

The Assistant Director of Administration is responsible for administrative matters, personnel, budget, control of expenditures and purchases.

The position reports directly to the Assistant Secretary and, except in the case of operating policy, is a decision making point in the organizational structure. It serves as liaison between the Vocational and Technical Area and the Department Level Undersecretary for Administration.

In addition to the functions outlined previously, the Assistant Director of Administration also substitutes for the Assistant Secretary during

her absence, and participates in the detailed evaluation of budget proposals and annual plan proposals submitted by the Program Directors.

Research and Curriculum Development

This Unit, headed by a Director reporting directly to the Assistant Secretary, has the functions of coordination of curriculum development within the Area of Vocational and Technical Education, dissemination of research information, educational research, compilation and analysis of educational statistics (including follow-up of Vocational-Techaical Program Graduates), maintenance of a research library and coordination of teacher training.

Promotion and Interagancy Relations

This is a small unit with the function of promoting the Vocational and Technical Education Programs among the potential program enrollees, the community, and government agencies.

The unit head position is transitory, as the budget proposal to create a permanent one has been repeatedly turned down.

Regional Level

The organizational structure at regional level indicates that General Supervisors of Vocational Programs report to Regional Directors. General Supervisors are following a dual reporting structure: administrative matters are brought up to the Regional Director for decisions while technical matters are usually brought up to central program administration for resolution. The General Supervisors receive instructions and supervision from the Regional Directors as well as from the central program supervisory group.

Functions of the General Supervisors at regional level include a mixture of administrative, clerical and supervisory tasks. Supervisors perform a variety of purchasing, personnel, accounting, and record keeping functions that

frequently leave little time for visits to the teachers in the field, work planning, problem solving and evaluation of the execution of the Programs. Secretarial assistance in general is scarce and often Supervisors' reports wait in queue for several days in order to be typed.

Although Vocational and Technical Education accounts for approximately 12% of the total budget for education, there is no single focus of responsibility for vocational activities at the regional level. Responsibility for overall supervision of Vocational Education rests with the Regional Director - with the recent exception of the San Juan Region - who also has important responsibilities for overall administration and direction of the entire educational activities within his region.

We find that the teacher to supervisor ratio usually approximates 50 to 1 and in some cases reaches as high as 70 to 1. Supervisors cover about thirteen school districts some of which are located at a significant distance from the Supervisor's base of operations. Substantial amounts of time are lost in traveling within the region to supervise the vocational and technical courses in the different schools.

CONCLUSIONS - PRESENT ORGANIZATION AND REPORTING RELATIONSHIPS

Analysis of the current organizational structure and reporting relationships previously described are discussed in the following paragraphs.

1. We understand that the position of Director of Instruction has only recently been filled, and that this may account for the Program Director responses indicating that they report directly to the Assistant Secretary while in the organization chart it shows that they report to the position of Director of Instruction.

With the new appointment of the Director of Instruction, reporting to this position by the Program Directors should be emphasized in order not to overburden the Assistant Secretary with Program problems and decisions which should be resolved at a lower management level.

2. Unit Directors spend an excessive amount of their time in direct supervision, curtailing time spent in other important activities such as planning, promotion, and evaluation of Program performance.

Unit Directors may lose sight of overall program objectives and fail to provide effective leadership if they get involved in too great a detail in the everyday operations of their administrative units.

3. To improve the executive succession a formal plan to familiarize and train replacements should be instituted.

4. In analyzing the situations existing in various programs with regard to dual reporting relationships, overlap of functions within a program, and generalized identification and assignment of functions, we conclude that this has been brought about by the need of well defined Program organization structures.

A list of functions rapidly becomes obsolete when not adjusted to reflect Program growth and operating characteristics. Assignment of these functions to individuals has to be logical and well defined to be effective. These individual lists of functions or job descriptions cannot be developed on an isolated basis as new positions are added to an organization, instead, they should be the result of an analysis of program objectives and the corresponding activities to carry these out. The organizational structure then evolves from the grouping of these functions into logical patterns.

5. The existing load of administrative and supervisory work at Program

Director level indicates that the systems and procedures used to process work through the administrative units and the delegation of authority to subordinates should be strengthened.

6. Program planning and budgeting are both related to a comprehensive long-range plan based on Vocational and Technical Education goals. In the present structure, however, these two responsibilities are organizationally independent of each other. The planning position is currently depicted as reporting to the Director of Instruction while the budgeting position reports to the Director of the Administration Unit.

As plans and budgets grow in size and complexity, the need to closely relate these two functions becomes more important. Although the present organizational arrangement has worked up to this time, we believe that it will be increasingly difficult to maintain an effective relationship between the two functions unless they are organizationally integrated.

7. Vacancies in key positions in the Technical Education, and Trades and Industries Programs tend to restrict the development and accomplishment of planned activities.

8. Responsibility for the areas of budgeting, personnel and control of funds is assigned to one unit under the Supervisor of administration. These important areas encompass a variety of functions which are not related directly and have different work and supervisory requirements.

9. The Construction, Supplies and Maintenance Unit is well located from an organizational structure point of view. We believe that the decision to augment the Unit's personnel was correct and should favorably affect the purchasing process for the time being, however, as construction of vocational and technical educational facilities is stepped up as planned, congestion in the unit is likely to result again.

The addition of more personnel to this Unit will only prove to be a temporary relief from the present difficulties in purchasing, and a more permanent solution is required.

10. After analyzing the various functions assigned to the Information, Research and Curriculum Development Unit, we conclude that the scope of responsibility of this unit is too wide.

We believe that a single organizational unit at this level cannot function effectively while trying to simultaneously satisfy the requirements of widely unrelated functions such as coordination of curriculum research and development, statistics compilation and analysis, follow-up of vocational-technical graduates and teacher training. Each of these broad classifications of the functions which the unit is responsible for are critical enough to warrant individualized attention.

11. The scope and magnitude of the Vocational and Technical Program requires the establishment of a permanent Interagency Relations and Promotion Unit within the structure of A.V.T.E. This Unit should coordinate its efforts with the Office of the Assistant Secretary of Community Relations. The need for this coordinated effort is more evident in light of recent decisions by the Secretary of Education to provide vocational training at all high schools in Puerto Rico.

12. The use of transitory positions at a professional level in several programs within the Area of Vocational and Technical Education creates a problem in Program continuity. Personnel in transitory positions will very likely leave when a regular position is available somewhere else. This turnover of professional personnel in addition to affecting continuity will also increase administrative costs by increasing training expense and the time required to bring a substitute to an acceptable level of expertise in the position.

13. As mentioned earlier, dual reporting relationships are contrary to the organizational concept of unity of command. The situation at the Regional level in which General Supervisors respond to the Regional Director and also the Program Directors has caused conflicts in the past and may result in confusion and decreased operational effectiveness at a time when vocational education is preparing to push forward with expanded programs and course offerings.

14. The existing teacher to General Supervisor ratio is too large when considered together with the administrative workload and distances to be traveled within an educational region. This ratio becomes more significant when we consider the expension contemplated to provide vocational course offerings in all high schools.

III - DEVELOPMENT OF THE ORGANIZATIONAL STRUCTURE

OVERVIEW

In order to develop an organizational structure, we defined and analyzed the basic functions of the Area of Vocational and Technical Education. To this analysis we applied the basic principles of organizational structuring and developed several alternatives which would fit the requirements of the A.V.T.E.

These alternatives were thoroughly reviewed and evaluated by the consulting team, using the criteria specified in Chapter II of this Report. The recommended structure was the product of changes, refinements and inclusion of the best features of the several alternatives which were considered.

CRITERIA FOR AN EFFECTIVE ORGANIZATION

The following principles were emphasized in the development of the recommended organizational structure. These criteria are listed below as a series of questions. Does the structure:

- Represent a logical grouping of functions?
- Eliminate duplication of effort?
- Contain flexibility for adding new functions?
- Facilitate coordination of instructional problem solution with business-related problem solution?
- Embody the ability to respond to new management techniques?
- Allow reasonable span of control?
- Get major problems to the attention of the Assistant Secretary?
- Represent a practical framework for planning and decision making?

Based upon the analysis of the current organizational framework and the criteria formulated to evaluate alternative structures, recommendations were developed which, when implemented, would result in a new upper-level administrative organization at central and regional levels. The development of these recommendations is outlined in Chapter IV of this Report. The recommended structure is presented in graphic form on page IV-1.

BASIC FUNCTIONS OF THE VOCATIONAL AND TECHNICAL EDUCATION AREA

The basic functions of the Area of Vocational and Technical Education can be classified in seven groups:

1. Instruction

This function controls the instructional activities of all Vocational and Technical Education Programs and special programs through the individual Program Directors.

2. Administration

This function controls the administrative matters within the Area of Vocational and Technical Education.

3. Information Systems

This function administers and develops reporting systems for control of operations and controls the review, analysis, and improvements of existing systems and procedures.

4. Planning, Budgeting and Evaluation

This function controls the organization of all resources required for the performance of area operations, and also evaluates the quality of the services offered.

5. Vocational Research and Curriculum Development

This function is responsible for conducting vocational research studies and coordinating the up-dating and development of curriculum programs.

6. Professional Training

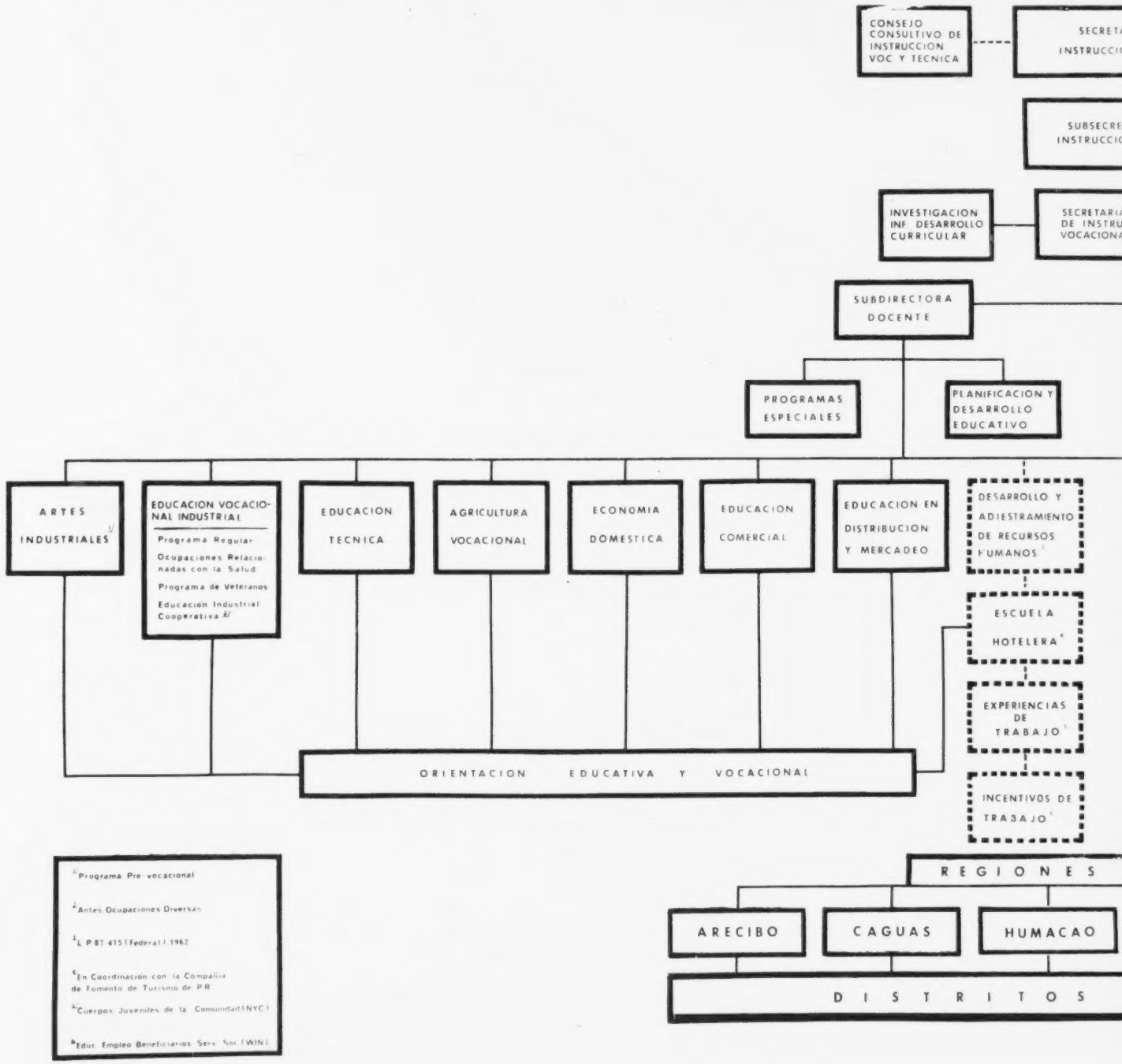
This function coordinates the professional training of the instructional and support personnel at all levels within the scope of Vocational and Technical Education.

7. Interagency Relations and Promotion

This function includes all communications with the community, private industry and other government agencies designed to promote and enhance the role of Vocational and Technical Education in the development of skilled workers in the economy.

ORGANIGRAMA

INSTRUCCION VOCACIONAL Y



1/ Programa Pre-vocacional

2/ Antes Ocupaciones Diversas

3/ L. P 87-415 (Federal) 1962

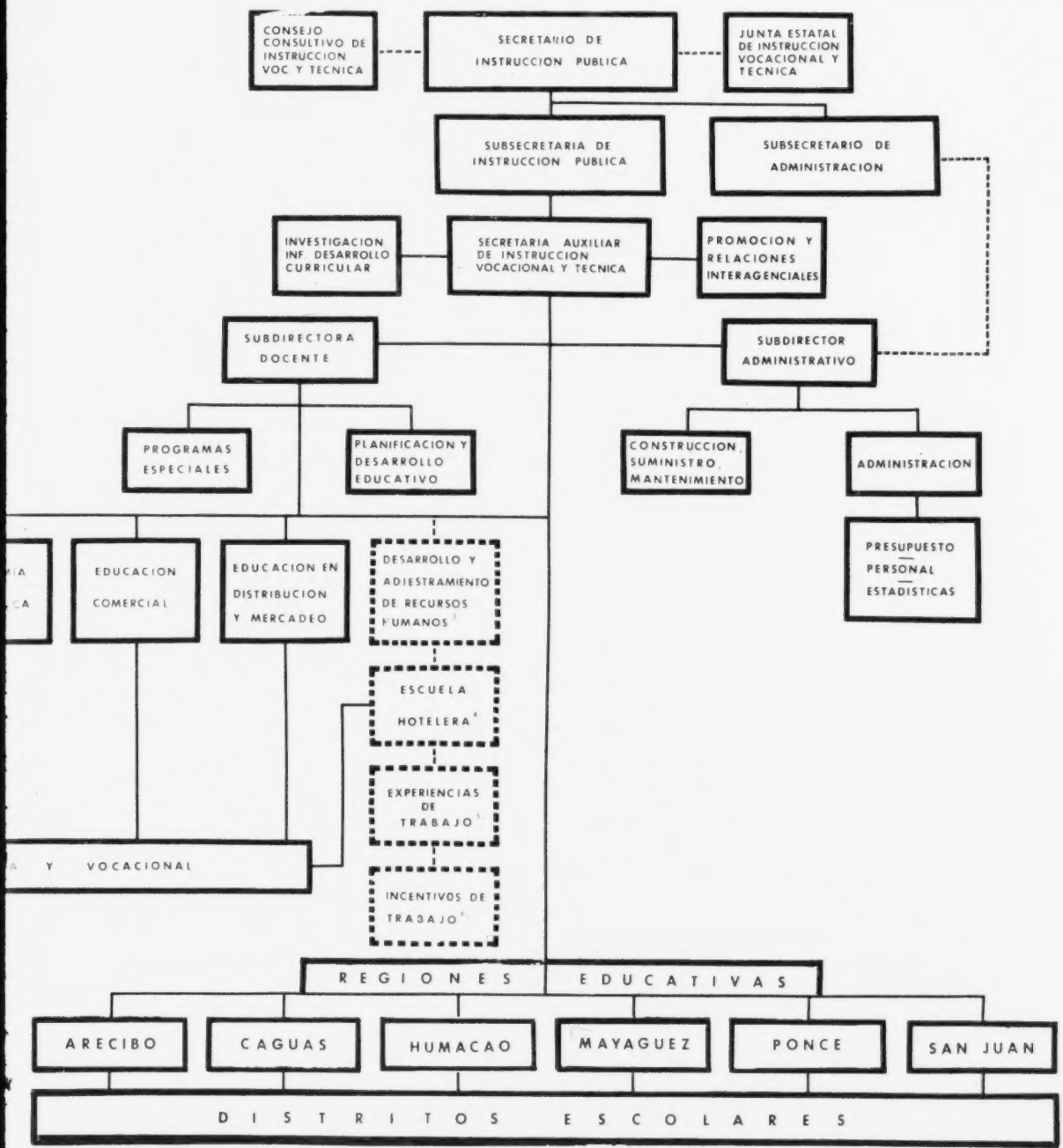
4/ En Coordinación con la Compañía de Fomento de Turismo de P.R.

5/ Cuerpos Juveniles de la Comunidad (NYC)

6/ Educ. Empleo Beneficiarios Serv. Soc. (WIN)

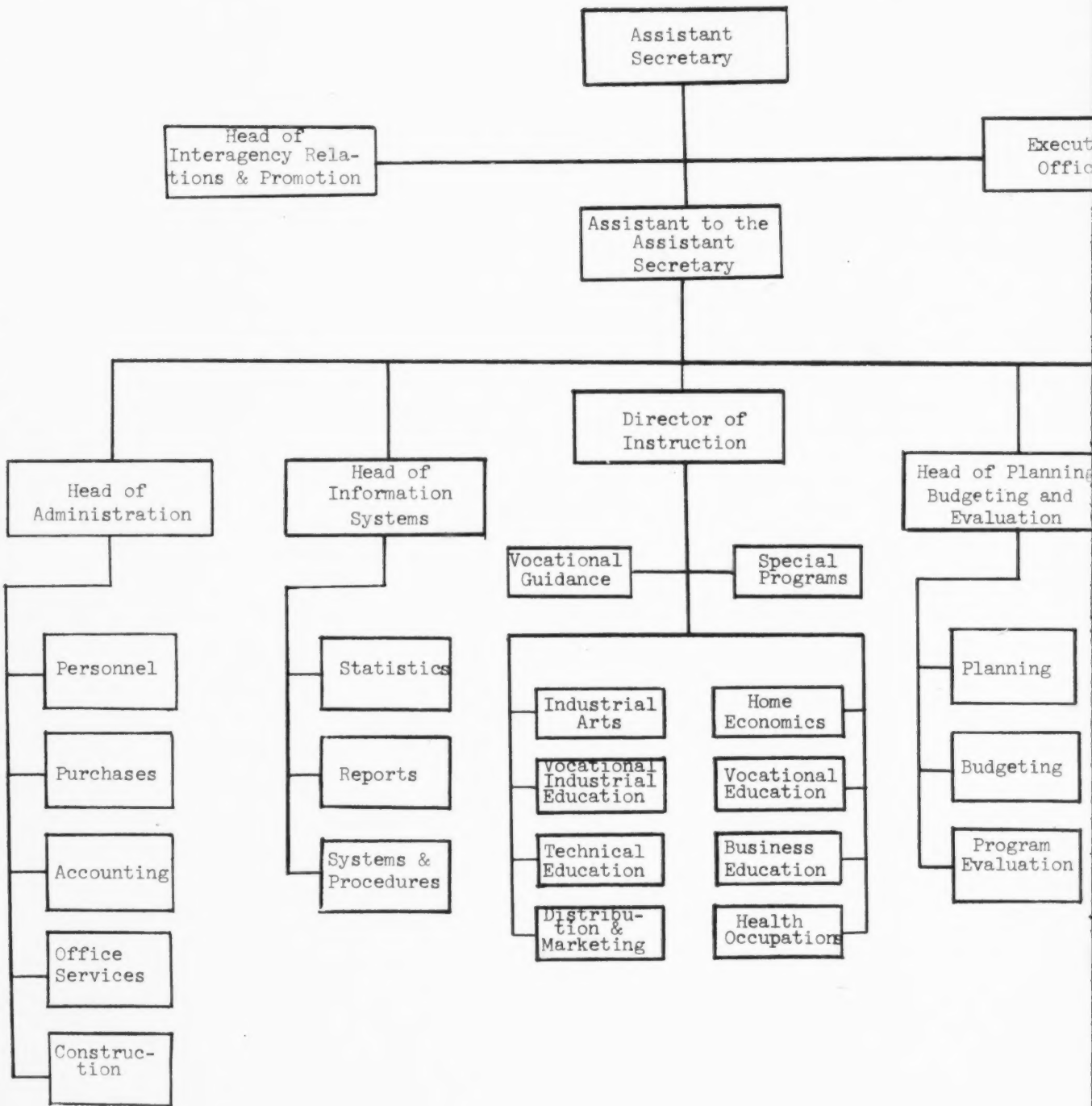
GANIGRAMA

VOCACIONAL Y TECNICA



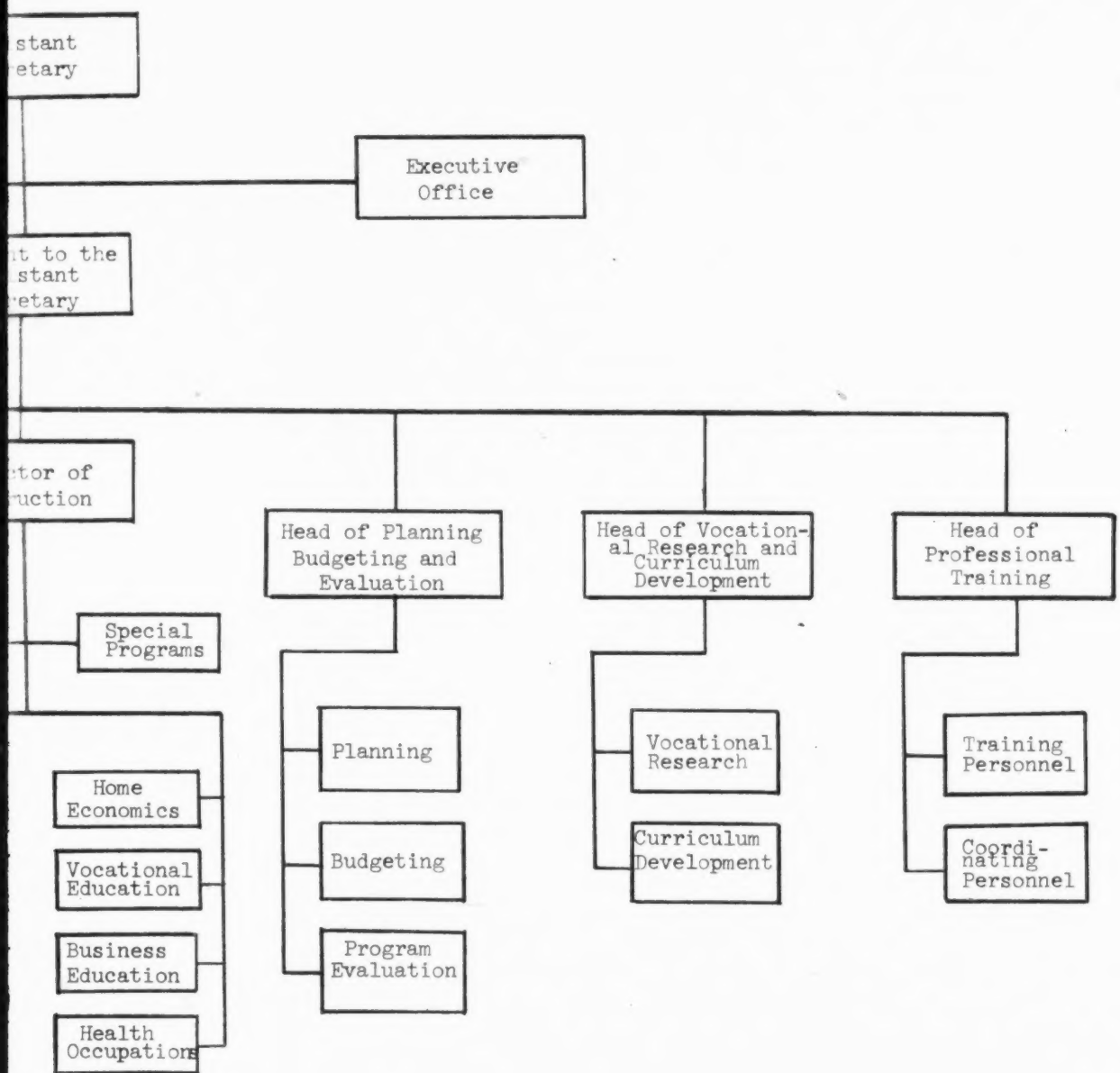
RECOMMENDED ORGANIZATION CHART

Area of Vocational and Technical Education



ECOMMENDED ORGANIZATION CHART

Vocational and Technical Education



IV - RECOMMENDATIONS ORGANIZATIONAL STRUCTURE

The following paragraphs contain a summary of the major recommendations relating to organizational structure at the central level of the Area of Vocational and Technical Education. The recommended organization chart is illustrated on the facing page.

ASSIGNMENT OF BASIC FUNCTIONS AND DESCRIPTION OF EXECUTIVE POSITIONS

We believe that adoption of the recommended organizational structure will serve to eliminate dual reporting relationships, provide for a reasonable span of control, establish adequate decision making levels, and facilitate exercising the proper level of supervision and delegation of authority.

The recommended organizational structure contemplates the following assignment of functions and responsibilities:

CENTRAL ORGANIZATION

1. Assistant Secretary of Vocational and Technical Education

The Assistant Secretary will have complete responsibility for the direction of all activities in the Area of Vocational and Technical Education. An Executive Office will assist the Assistant Secretary in the administration of the area.

The Executive Office should include the following two positions:

- Executive Assistant
- Assistant for Programs

2. Head of Interagency Relations and Promotion

Coordinates with the Public Relations Unit of the Department of Education to foster all communications within the A.V.T.E. and outside the A.V.T.E. with the community, private industry and other government agencies.

The Head of Interagency Relations and Promotion will be responsible for the following functions:

- Develops and supervises the Interagency Relations' Program of the A.V.T.E. in close coordination with the Public Relations Unit of the Department of Education.
- Reviews and evaluates the activities of Public Relations' Representatives of the A.V.T.E. in meeting objectives and performance standards.
- Promotes, through special programs and the mass media, the activities and services provided by the A.V.T.E.
- Reports directly to the Assistant Secretary of Vocational and Technical Education.

3. Assistant to the Assistant Secretary of Vocational and Technical Education

Will act as Assistant Secretary in the Secretary's absence and will have the authority and responsibility for all operational matters within the Area of Vocational and Technical Education. The following positions will report to the Assistant to the Assistant Secretary.

- Director of Instruction
- Head of Administration
- Head of Planning, Budgeting and Evaluation
- Head of Information Systems
- Head of Professional Training
- Head of Vocational Research and Curriculum Development

4. Director of Instruction

The overall responsibility for operation and control of all Vocational and Technical Education Programs will be assigned to the Director of Instruction.

Two factors underline our recommendations for the establishment of this position at this level: first, it would serve to strengthen the control of

the Vocational and Technical Education Programs; and second, it would serve to limit the Assistant Secretary's and Assistant to the Assistant Secretary span of control to seven positions.

The Director of Instruction will be responsible for the following functions:

- Supervision of the operation of all programs in the Area of Vocational and Technical Education.
- Supervision of the controls established in the Vocational and Technical Education Programs.
- Coordination of the functioning of all curriculum development for each program.
- Evaluation of monthly progress reports prepared by each Program Director.

5. Head of Administration

Responsible for the execution and control of the administrative matters within the Area of Vocational and Technical Education including coordination of purchasing, personnel, office services, fund control, and construction of classroom, laboratory and shop facilities.

This position is maintained in the recommended organization structure to provide an organization established around major functions of the Area of Vocational and Technical Education and to limit the span of control at the Assistant Secretary level.

The Head of Administration will be responsible for the following functions:

- Supervises and provides general directives to the following administrative units: construction, office services, purchases, personnel and accounting.
- Responsible for the review of systems and procedures for the administrative units.
- Responsible for all the activities and services provided by the administrative units.

6. Head of Information Systems

Responsible for the administration and development of Management Information Systems required for control of operations and analysis and design of systems and procedures.

The following administrative units will report to the Head of Information Systems:

- Statistics
- Reports
- Systems and Procedures

The Head of Information Systems will be responsible for the following functions assisted by his Unit Administrators and Regional Coordinators for Budgets and Statistics:

- Supervises all the administrative units under him and provides them with general directives.
- Responsible for the review and development of a system to gather statistical information on a regular basis.
- Responsible for all the activities and services provided by the administrative units under his jurisdiction.
- Responsible for the review and development of the vocational programs reporting system.
- Responsible for the development and review of all systems and procedures for the A.V.T.E.

7. Head of Planning, Budgeting and Evaluation

The Head of Planning, Budgeting and Evaluation will be responsible for development of long and short range plans, formulation of operating budgets, and program evaluation. He will be assisted in these responsibilities by his Unit Administrators for the planning, budgeting, and evaluation units, and also by the Assistant Regional Directors for Vocational and Technical Education and the Regional Coordinators for Budgets and Statistics.

The Head of Planning, Budgeting and Evaluation will be responsible for the following functions:

- Supervises and provides general directives to the following administrative units: budgeting, planning and evaluation.
- Responsible for the preparation of the Five-year Plan for the A.V.T.E.
- Responsible for the coordination of the annual budget for the A.V.T.E.
- Provides technical advice to Program Directors in the areas of planning, budgeting and evaluation.

8. Head of Vocational Research and Curriculum Development

Responsible for the administration and development of vocational research to insure current techniques and methods for the Program and the coordination and updating of curriculum development.

The Vocational Research and Curriculum Development units will report to the Head of Vocational Research and Curriculum Development.

The Head of this office will be responsible for the following functions assisted by his Unit Administrators and Curriculum Coordinators:

- Supervises all the administrative units under him and provides them with general directives.
- Development of vocational research for the programs.
- Coordination and updating of curriculum programs.
- Responsible for all the activities and services provided by the administrative units.

9. Head of Professional Training

Responsible for the administration of pre-service, in-service and continuing education and training programs for professional staff members at all levels within Vocational and Technical Education.

The Head of Professional Training will be assigned the following functions:

- Supervises all the instructors of the training programs.
- Supervises the development of teaching materials and guides to be used in the training programs.
- Supervises the operation and evaluates the effectiveness of the training programs.
- Responsible for all the activities and services provided by the training programs.
- Coordinates with the Director of Instruction to insure participation of all personnel requiring instruction.

PROGRAM ADMINISTRATION

Overview

Although the scope of the Administrative Utility Analysis in terms of detailed findings, conclusions and recommendations was limited to the upper echelon of the Area of Vocational and Technical Education, we had the opportunity to observe during our review the characteristics of the individual programs and the functions of each member within the Program's administrative structure.

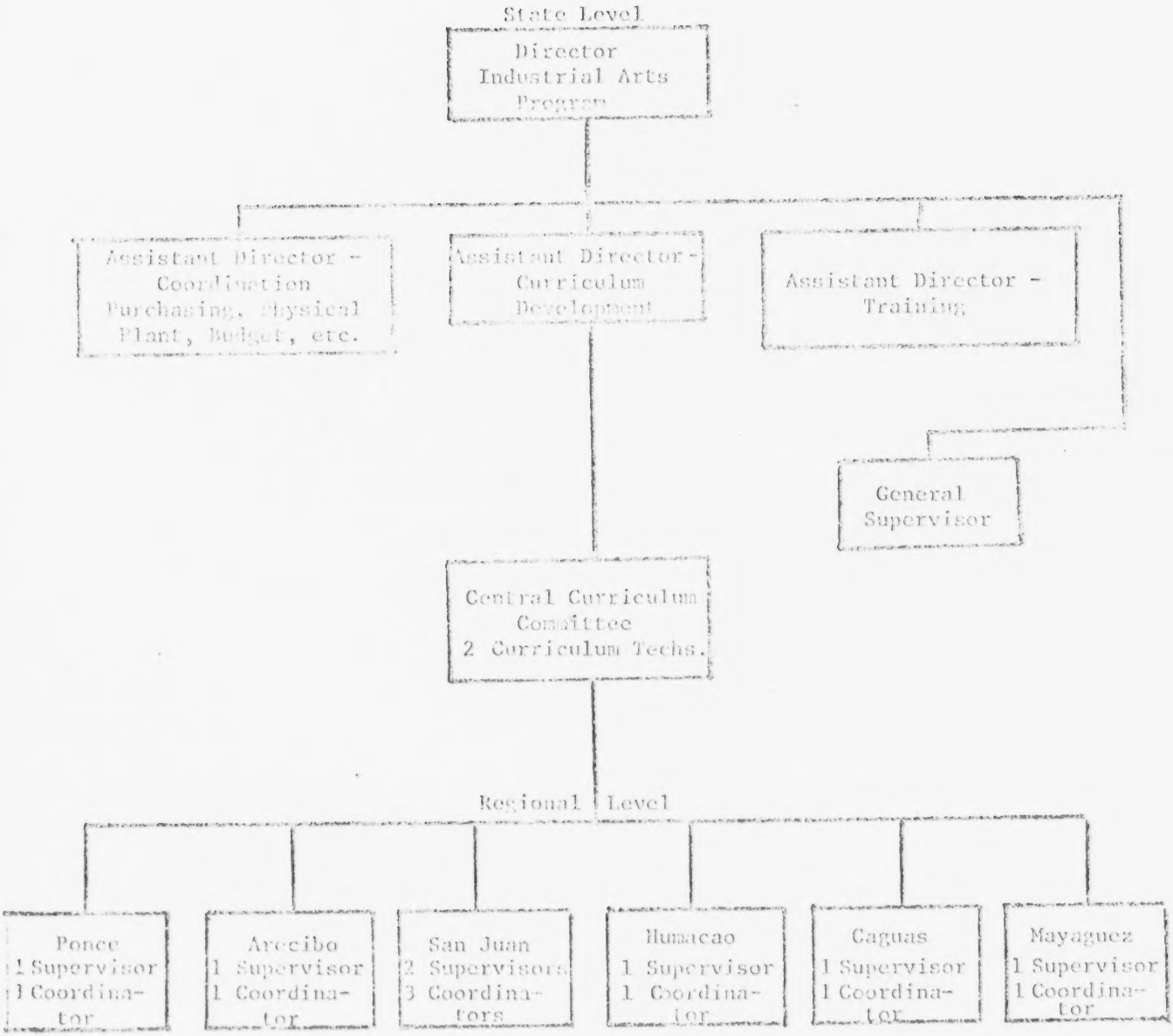
The following recommendations are general guidelines which we propose, based on the findings and conclusions with regard to the internal management structure and operating methods of the individual Vocational-technical Programs.

These guidelines will provide a base for establishment of a functional organization structure for each Vocational-technical Program which in our judgement is a prerequisite to the other steps which we consider essential to improving the effectiveness of program administration.

Subsequent to the implementation of the proposed program organization structures, the Area of Vocational and Technical Education should endeavor to develop:

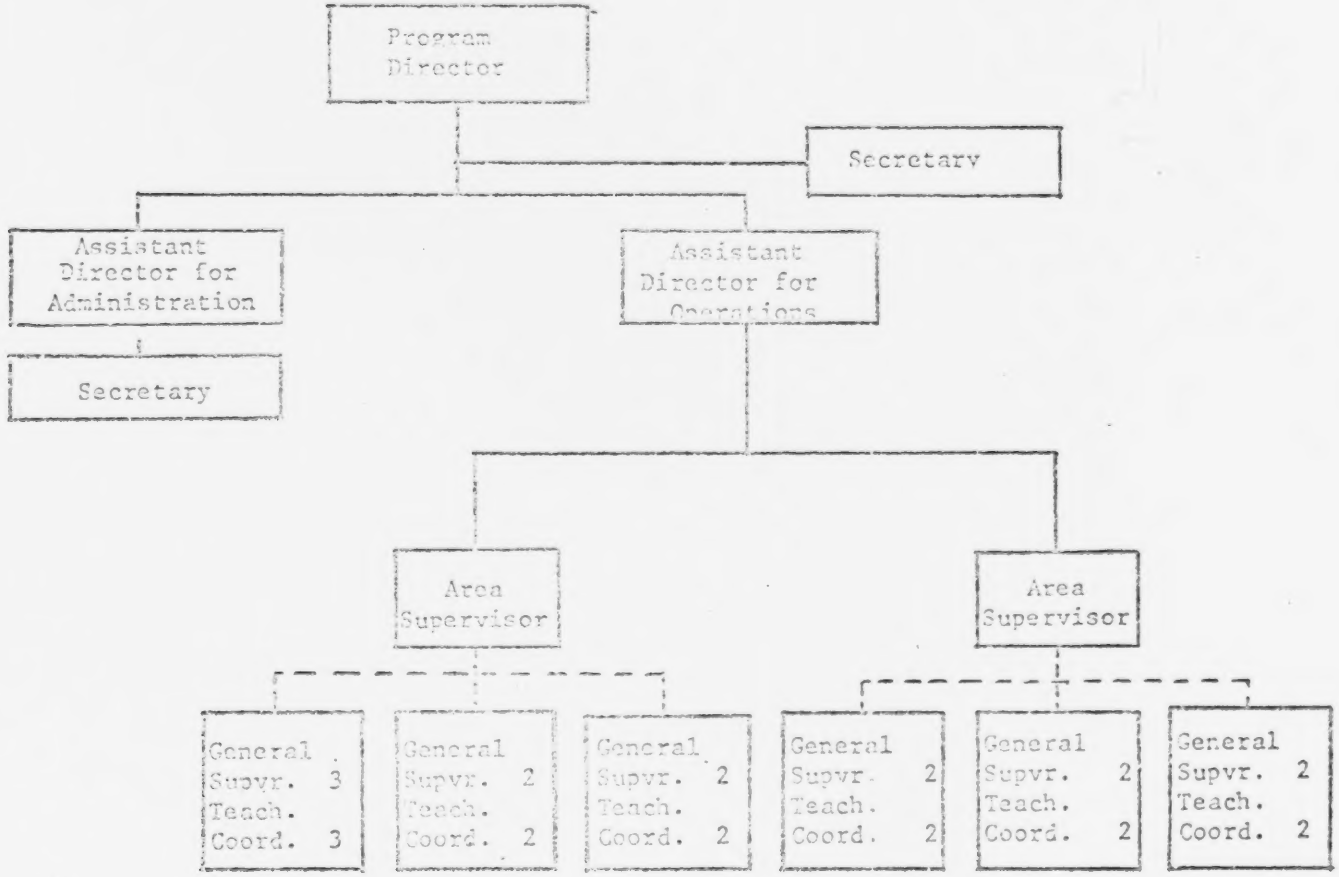
PRESENT ORGANIZATION CHART

Industrial Arts


State Level
Director Industrial Arts Program
Assistant Director - Coordination Purchasing, Physical Plant, Budget, etc.
Assistant Director - Curriculum Development
Assistant Director - Training
General Supervisor
Central Curriculum Committee 2 Curriculum Techs.
Regional Level
Ponce 1 Supervisor 1 Coordinator
Arecibo 1 Supervisor 1 Coordinator
San Juan 2 Supervisors 3 Coordinators
Humacao 1 Supervisor 1 Coordinator
Caguas 1 Supervisor 1 Coordinator
Mayaguez 1 Supervisor 1 Coordinator

RECOMMENDED ORGANIZATION CHART

Industrial Arts


Program Director
Secretary
Assistant Director for Administration
Secretary
Assistant Director for Operations
Area Supervisor
Area Supervisor
General Supvr. 3 Teach. Coord. 3
General Supvr. 2 Teach. Coord. 2
General Supvr. 2 Teach. Coord. 2
General Supvr. 2 Teach. Coord. 2
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- A well defined executive succession plan to insure program continuity in the event of promotion, transfer, resignation, or other event causing a key position within a program to become vacant.

- Revised work systems and procedures designed to encourage work simplification at all levels and resulting in the reduction of duplication of efforts and unnecessary administrative procedures to enable key program personnel to direct their time and efforts to more important program issues.

Descriptive program-level organizational structures follow below. The present and proposed organization charts are included in the page facing the description of the Program.

INDUSTRIAL ARTS

We recommend that the Industrial Arts Program be organized in two major functional areas reporting to the Program Director. Each functional area should be placed under the responsibility of an Assistant Program Director, an Assistant Director of Operations, and an Assistant Director of Administration. The curriculum development and training function should be removed to those area level units designated in our central level organization as responsible for those functions.

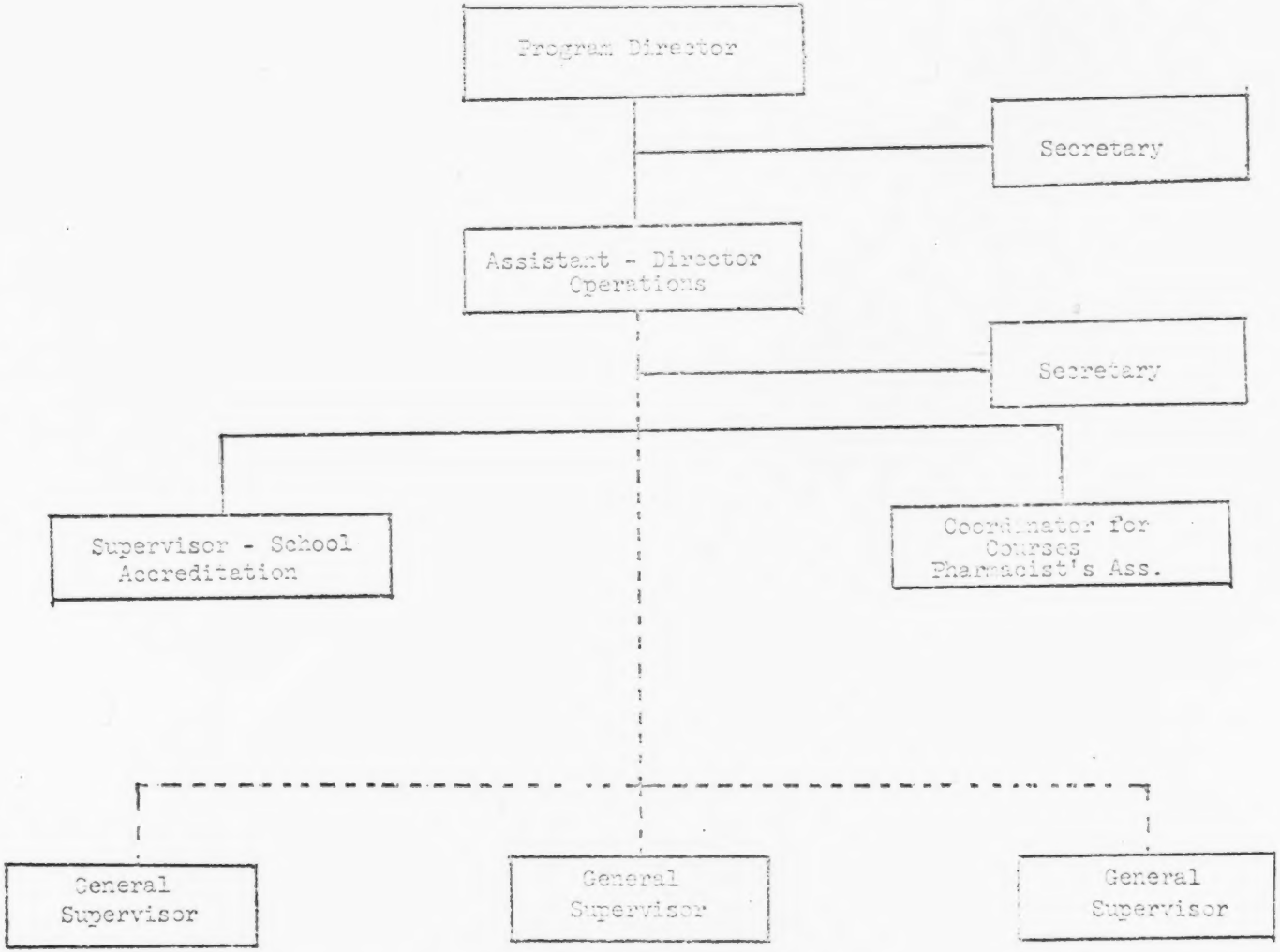
The operations function within Industrial Arts should be further divided into two groupings of the educational regions. Each of these groupings would be placed under a General Supervisor. The educational regions could be grouped as follows:

General Supervisor A	General Supervisor B
San Juan	Ponce
Arecibo	Humacao
Mayaguez	Caguas

The scope of our review did not cover the lower echelon positions within this program; however, the observations made in our visits to the regions and

RECOMMENDED ORGANIZATION CHART

Health Occupations



the interviews conducted at the central program level indicate that the present ratio of teachers to General Supervisors - over 100 to 1 - is too large. We believe that the number of the regional personnel should be increased by not less than six supervisors and five teacher coordinators. The recommended distribution of supervisors and teacher coordinators by region should be based on the number of teachers in the region.

The Assistant Director of Administration should be responsible for the coordination of procurement, personnel appointments and physical plant. It should also include assistance to the Program Director in development of plans and budgets and in reporting of operations.

We recognize that in the past there have been significant problems in the areas of purchasing and personnel and that the Industrial Arts Program has been affected by these. However, considering the recommended change of organizational structure at the regional level, the strengthening of the purchasing and personnel functions at area level, and the projected increase of $82,000 in budgeted expenditures for the next fiscal year, we believe that it is not necessary to augment the personnel assigned to this function at this time.

Two secretaries should be assigned to this program:

. One for the Program Director

. One for the Assistant Directors

HEALTH OCCUPATIONS

At this time, the Health Occupations Subprogram is a part of a larger program of Vocational Industrial Education together with Trades and Industries (T. & I.), Manpower Development and Training (M.D.T.A.), and Work Incentives (W.I.N.).

In the next section of this chapter we recommend the separation of T. & I., M.D.T.A. and W.I.N., from Health Occupations and the establishment of a distinct program unit in which the three would fit.

Analyzing the present structure of Health Occupations in light of current operating requirements and projected growth, we come to the conclusion that some restructuring is necessary to strengthen the Program's functioning.

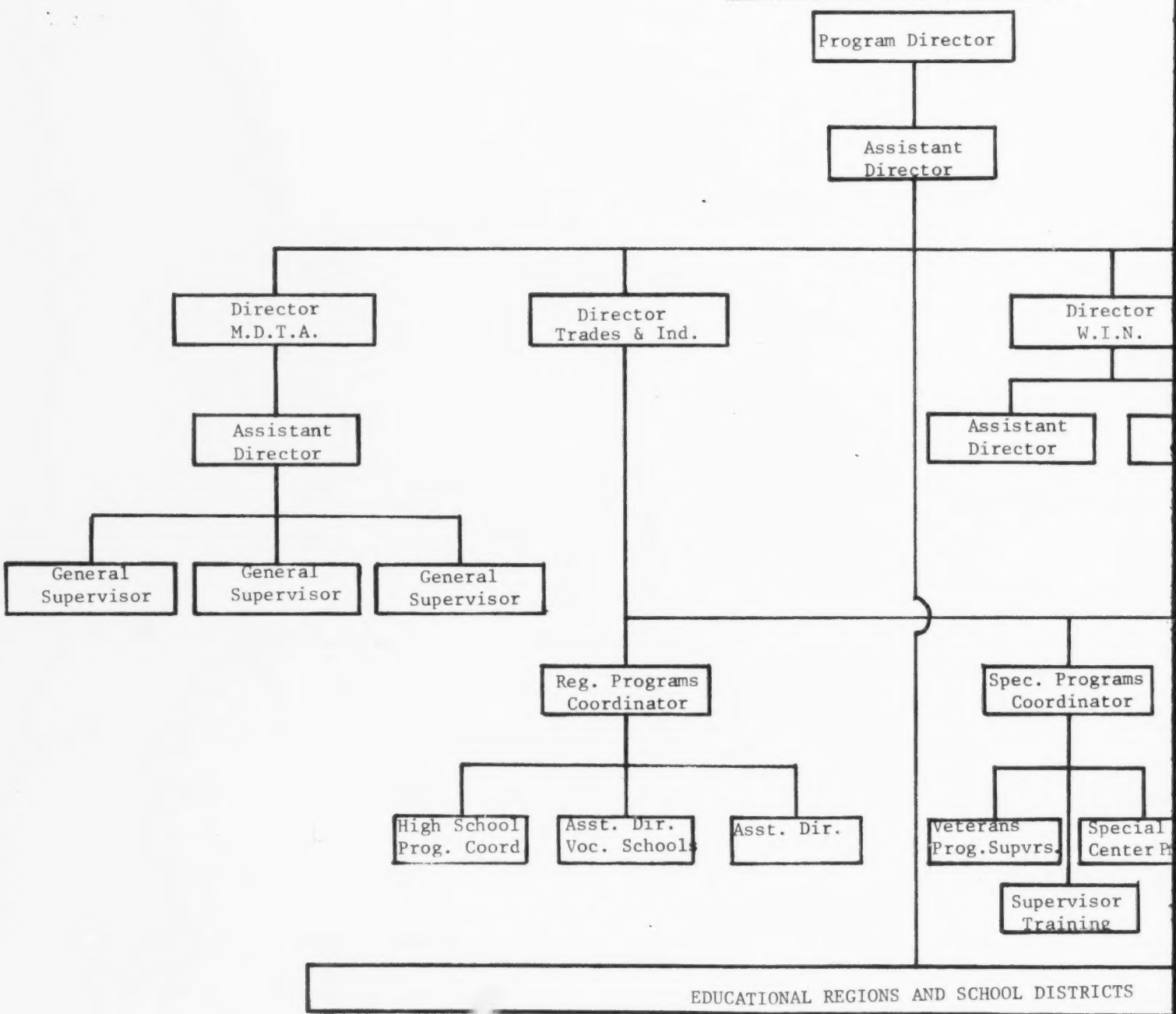
We recommend that Health Occupations be established as a separate program with a Program Director reporting directly to the Director of Instruction. The Program Director in addition to planning and budgeting responsibilities as well as the preparation of reports of operations would have responsibility for the coordination of all procurement functions within the Health Occupations Program. Personnel appointments and school and shop facilities would also be under his responsibility.

The Assistant Director of Operations would be assisted by a Supervisor in charge of school accreditation, and a coordinator in charge of pharmacist's assistants courses. He will coordinate and plan operations of the General Supervisors.

We recommend that a staff of General Supervisors be established to carry out the actions generated by the Health Occupations Program. Initially, we believe that the Program should be represented by three General Supervisors, one for every two regions. Therefore, a total of three permanent General Supervisors positions should be recruited and assigned to this Program to provide effective supervision of field operations. This Program should have two secretaries assigned to the Program Director and the Assistant Director of Operations.

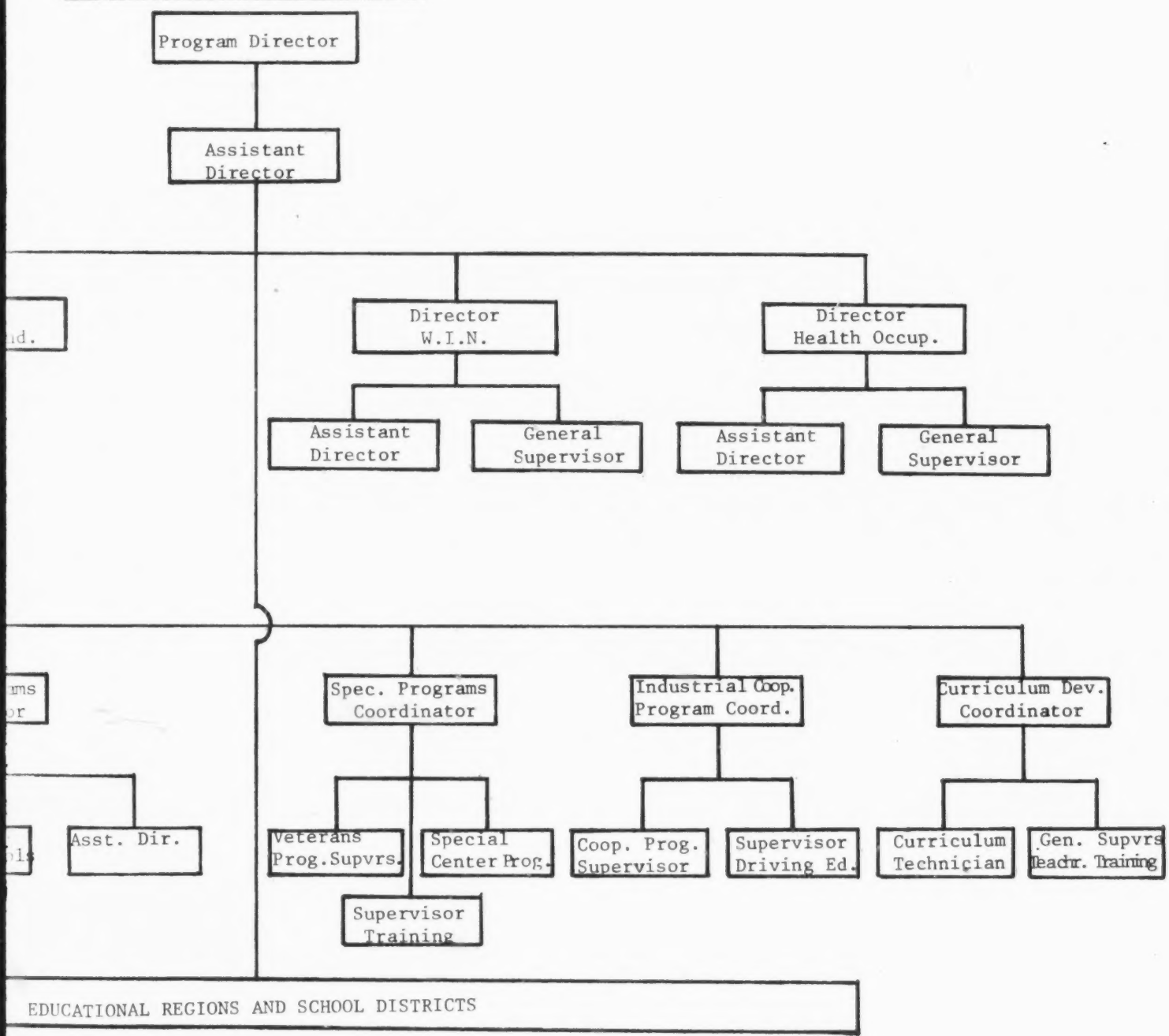
PRESENT ORGANIZATION CHART

Vocational Industrial Education



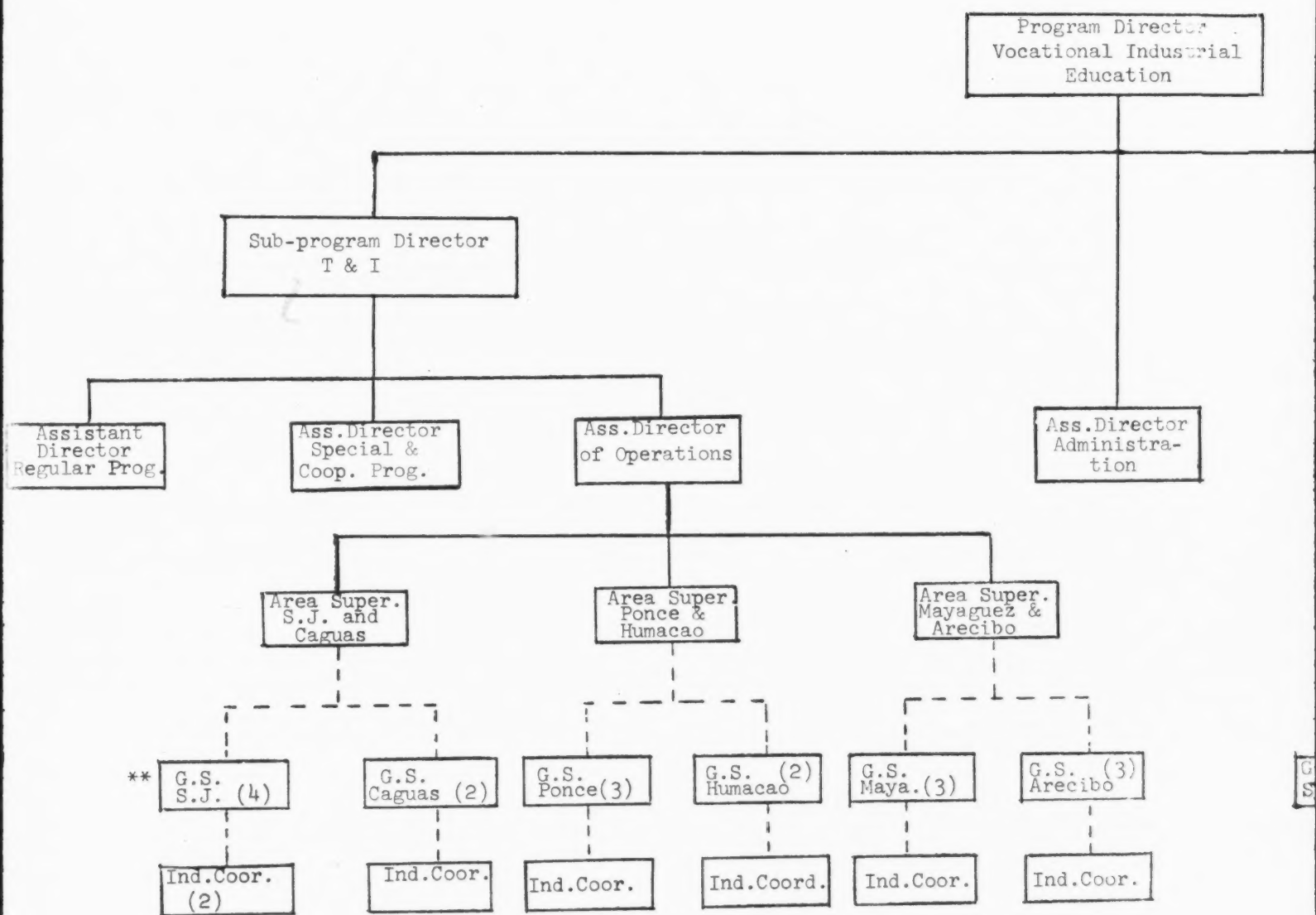
PRESENT ORGANIZATION CHART

Vocational Industrial Education



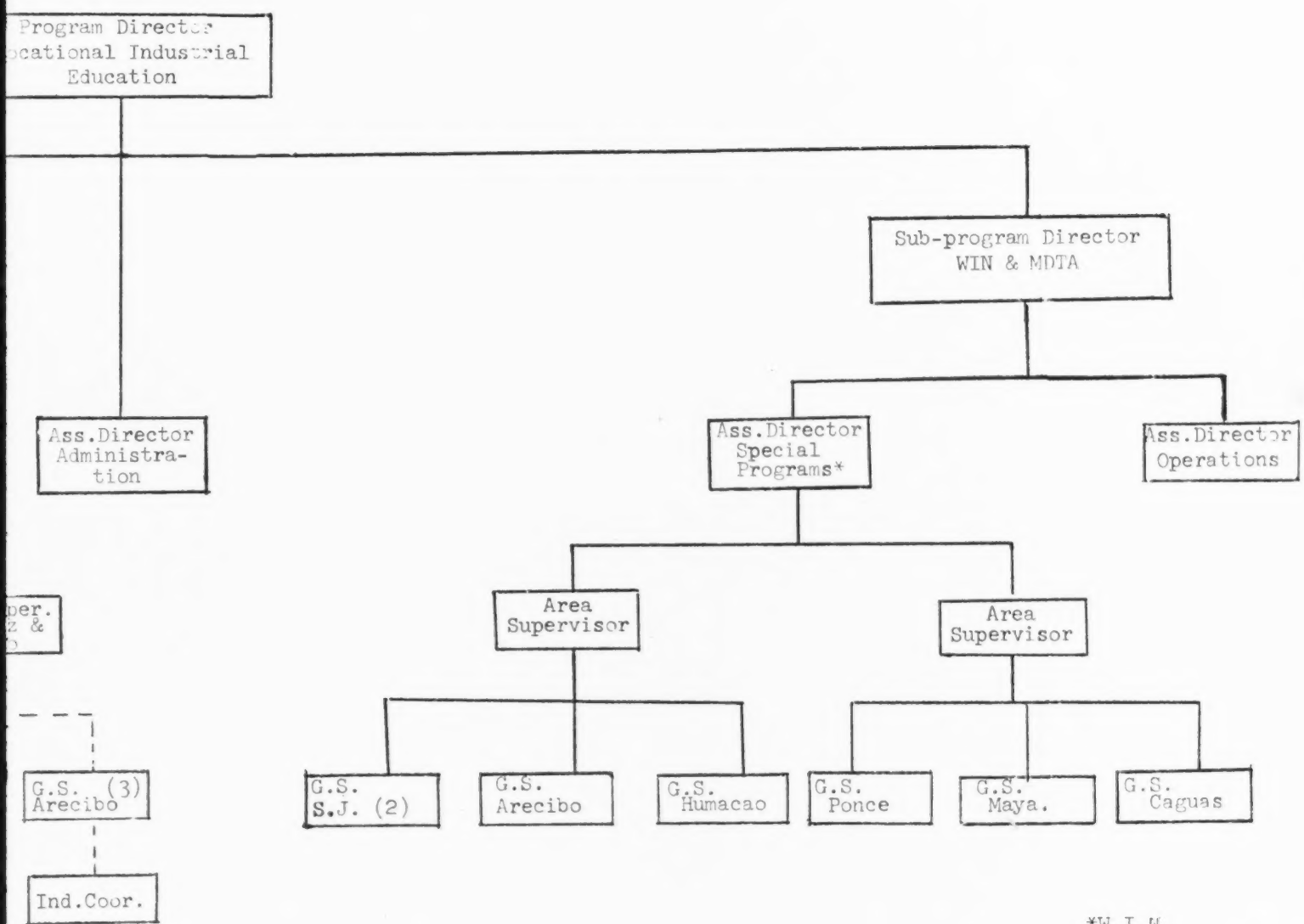
RECOMMENDED ORGANIZATION CHART

Vocational Industrial Education



ENDED ORGANIZATION CHART

onal Industrial Education



*W.I.N.
**General Supervisor

VOCATIONAL INDUSTRIAL EDUCATION
Trades and Industries (T. & I.)
Manpower Development and Training (M.D.T.A.)
Work Incentives (W.I.N.)

After examining the individual scope of T. & I., M.D.T.A. and W.I.N. Subprograms and considering their present location within the organizational structure, staffing at central level, projections for enrollment, number of teachers for the next fiscal year and their interrelationships, we conclude the following:

- The subprograms should remain in the present location in the organizational structure in which they form part of Vocational Industrial Education.
- The relationships between the subprograms are significant and their relative location in an organization should reflect this.

We, therefore, recommend that a program unit be established in which T. & I., M.D.T A. and W.I.N. Subprograms are grouped together under one Program Director. The structure of the proposed program is illustrated in the facing page.

The Program Director will have two Subprogram Directors and an Assistant Director reporting to him:

- Subprogram Director of T. & I.
- Subprogram Director of W.I.N. and M.D.T.A.
- Assistant Director of Administration

The Subprogram Director of T. & I. and the Subprogram Director of W.I.N. and M.D.T.A. would have direct responsibility for the operations of their programs. Their inputs, ideas, plans and recommendations should be implemented through the Vocational Industrial Education Program Director and their respective Assistant Directors of Operations.

The Subprogram Director of Trades and Industries will have three Assistant Directors as follows:

- Assistant Director of Regular Programs
- Assistant Director of Special and Cooperative Programs
- Assistant Director of Operations

The Assistant Director of Regular Programs would have staff responsibility for the implementation of the approved plans affecting the regular program of instruction in T. & I. He would initiate actions and recommendations related to this program area which would be implemented through the Assistant Director of Operations.

The Assistant Director of Special and Cooperative programs would have responsibilities similar to those described above for the Special and Cooperative Programs within T. & I.

The Assistant Director of Operations is responsible for the field operations of T. & I. He has a staff of three Area Supervisors who in turn work through the General Supervisors attached to the educational regions. Each Area Supervisor will be responsible for two regions and will work directly with the Assistant Regional Directors of Vocational Technical Education in matters affecting T. & I.

Training and curriculum development activities should be removed to the Central Level units responsible for those functions.

We believe that strengthening of the organizational structure at the central program level in this case has to go hand-in-hand with strengthening the supervisory effort at regional levels. In our visits to the educational regions, we observed the workload of the T. & I. supervisors and this further emphasizes our recommendations for increasing the number of regional supervisors.

The following is our recommended level of General Supervisors:

	Proposed	Present	Increase
San Juan	4	2	2
Ponce	3	1	2
Mayaguez	3	1	2
Arecibo	3	1	2
Caguas	2	1	1
Humacao	2	1	1
Total	17	7	10

The staffing level of Industrial Coordinators should remain constant.

These levels take into consideration the establishment of a regional level Administrative Unit which would absorb a great part of the administration and business management duties which currently are being accomplished by the Regional General Supervisors.

Trades and Industries should have three secretaries permanently assigned to it. Suggested placement is as follows:

- Secretary to the Subprogram Director
- Secretary to the Assistant Director of Operations
- Secretary to the Assistant Directors of Regular and Special and Cooperative Programs

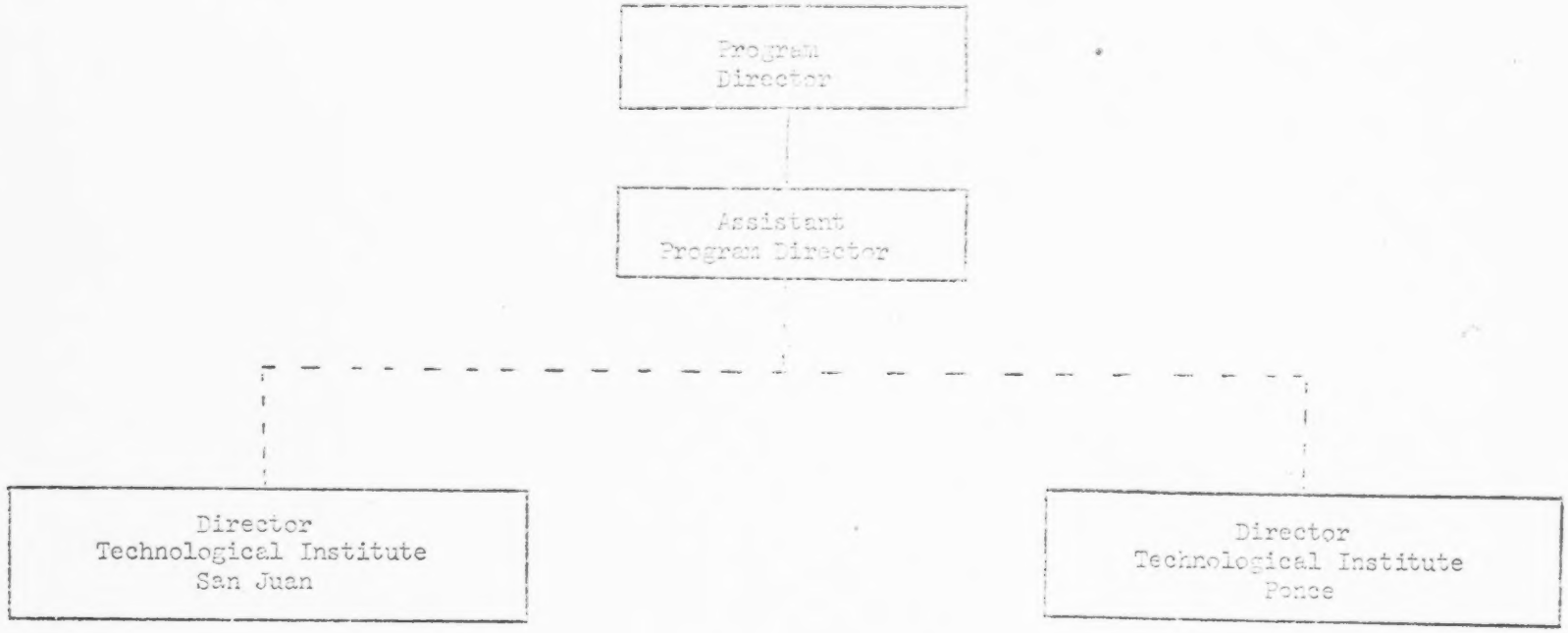
The Subprogram Director for W.I.N. and M.D.T.A. will have two Assistant Directors as follows:

- Assistant Director of Special Programs
- Assistant Director of Operations

The Assistant Director of Special Programs will be assisted by two Area Supervisors. These two Supervisors with offices at the central program level will have responsibility for coordination with the Regional General Supervisors through the corresponding Assistant Regional Directors of Vocational and Technical Education.

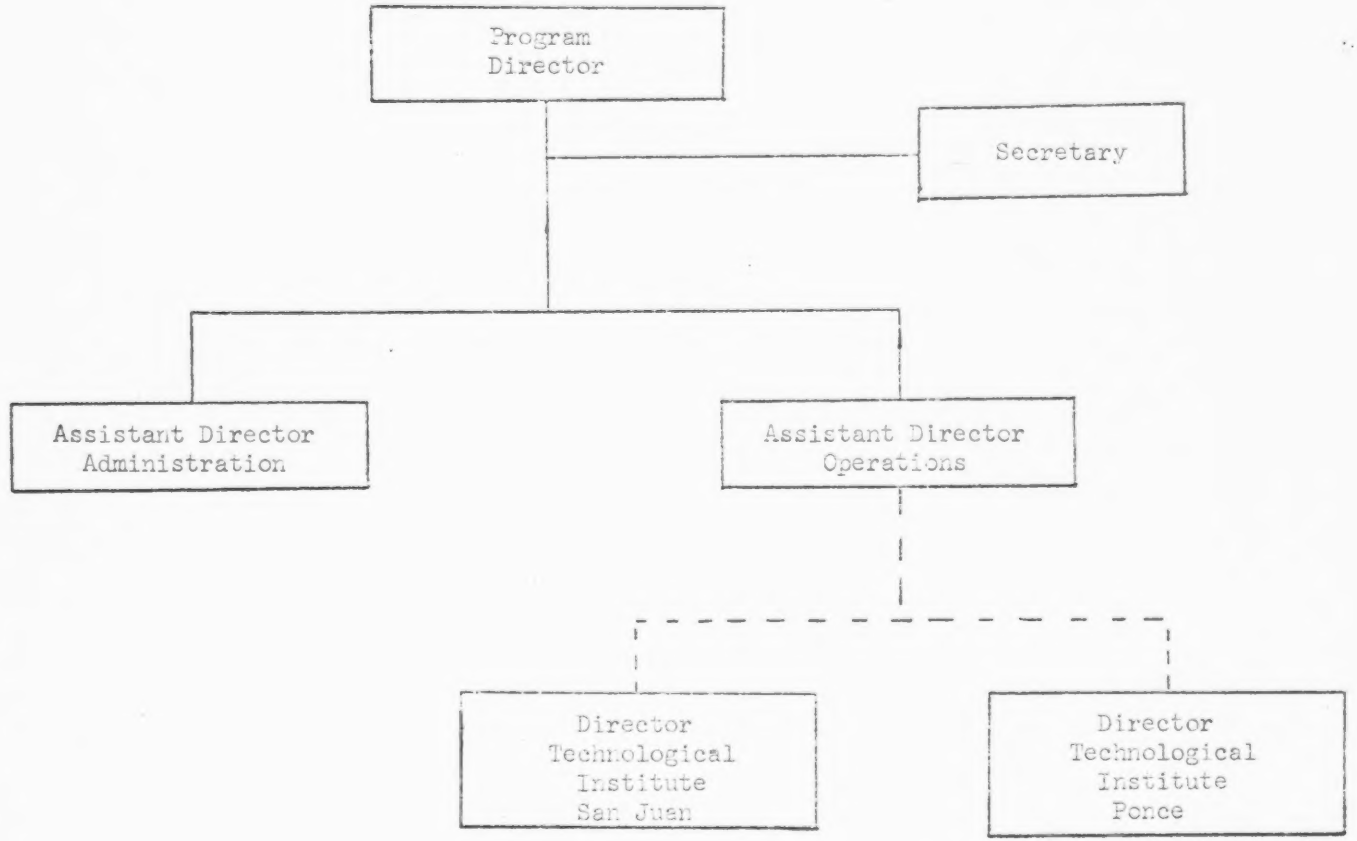
PRESENT ORGANIZATION CHART

Technical Education



RECOMMENDED ORGANIZATION CHART (1)

Technical Education



(1) Target date for implementation

Assistant Director - Administration - 1971-72
Assistant Director - Operations - 1972-73

All field operations concerning M.D.T.A. and W.I.N. Subprograms will be the responsibility of the Assistant Director of Operations. The Assistant Director of Operations will direct the M.D.T.A. Subprogram and he will also implement the recommendations of the Assistant Director for W.I.N.

We recommend that a staff of Regional General Supervisors be established to carry out the actions generated by the central programs group. Initially we believe that the W.I.N. and M.D.T.A. Subprograms be represented by one General Supervisor in each region with the exception of the San Juan Region which, due to the concentration of courses should have two. Therefore, a total of seven General Supervisors should be recruited and assigned to those Subprograms to provide effective supervision of field operations.

The Assistant Director of Administration will have responsibility for matters concerning personnel, purchasing, facilities and for supportive clerical and administrative services to the other members of the Central Program Staff. He will also assist the Program Director in the development of plans and budgets for the three Subprograms and for the entire program unit.

This program unit should retain two secretaries to be assigned to the Subprogram Director and the Assistant Directors.

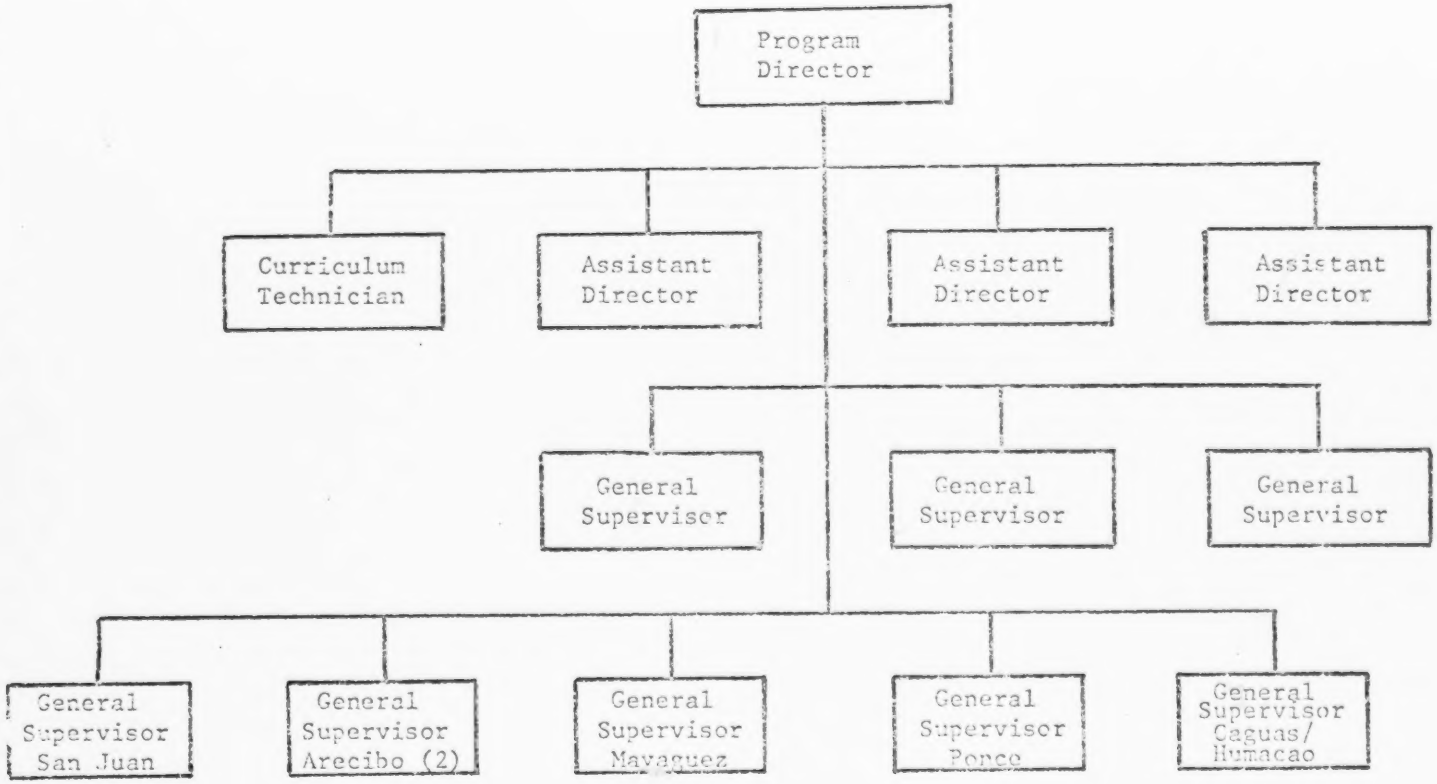
TECHNICAL EDUCATION

The position of Program Director is vacant; the Director of Instruction is acting as Program Director. Ideally, the candidate to fill this position should have direct experience as Director of a Technological Institute. We recommend to upgrade the salary level of this position to make it attractive enough to be considered favorably by an Institute Director.

The four-year plan calls for a sizeable increase of operations. The number of teachers is planned to increase from 38 to 86 teachers in 1972, 93 in 1973 and 128 in 1974.

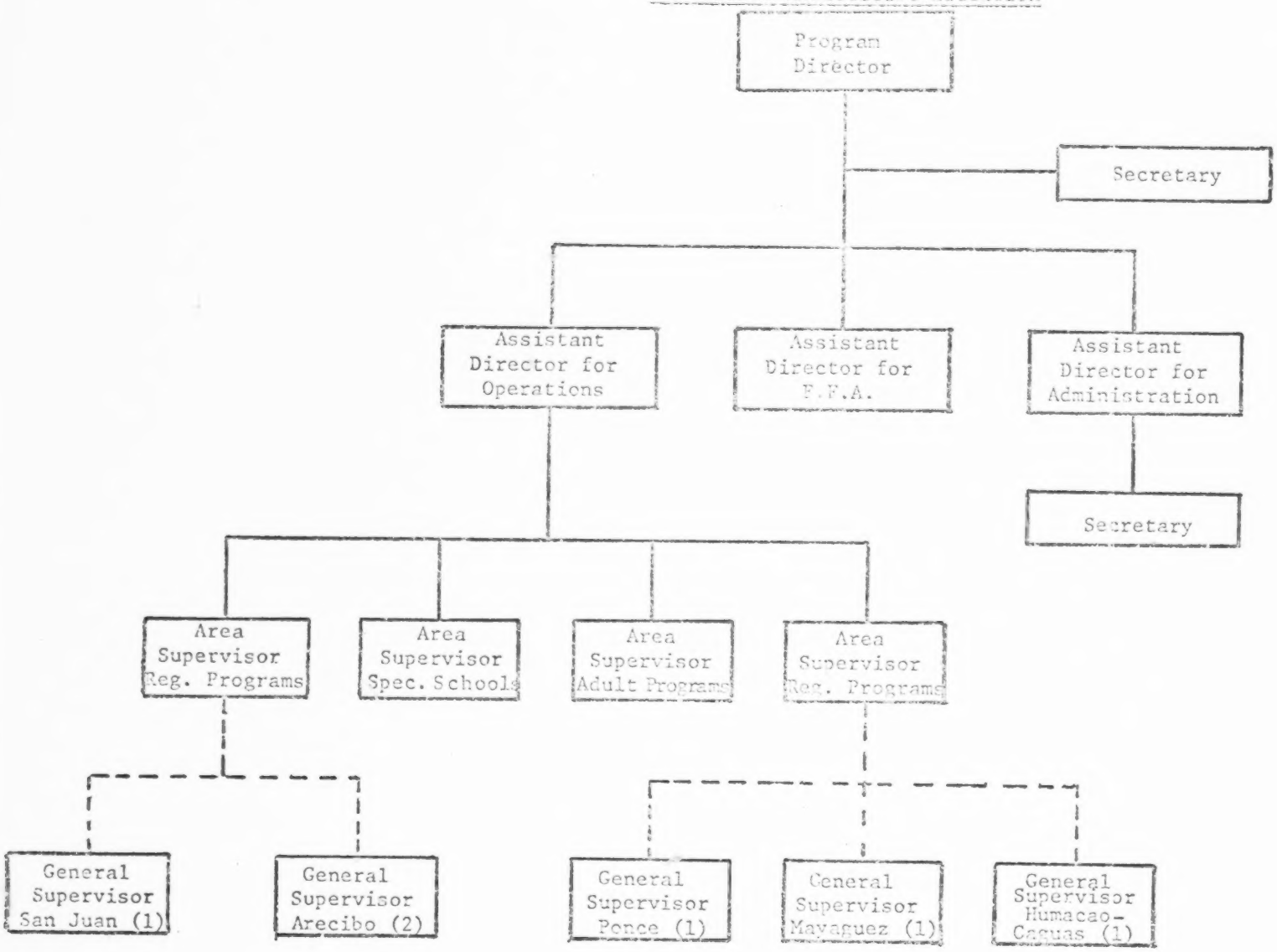
PRESENT ORGANIZATION CHART

Vocational Agriculture Education



RECOMMENDED ORGANIZATION CHART

Vocational Agriculture Education



The recommended organization chart takes into consideration the planned increase in operations. Tentative recommended target dates should be adhered if the planned increase materializes.

Recommended target dates are as follows:

. Assistant Director of Administration - 1971-72

. Assistant Director of Operations - 1972-73

This program should retain one secretary.

VOCATIONAL AGRICULTURE EDUCATION

We recommend that the organizational structure of the Vocational Agriculture Education Program be modified to reflect the criteria set forth for the development of the Programs organizational structure.

The Program Director should have the following three Assistant Directors reporting directly to him:

. Assistant Director of Administration

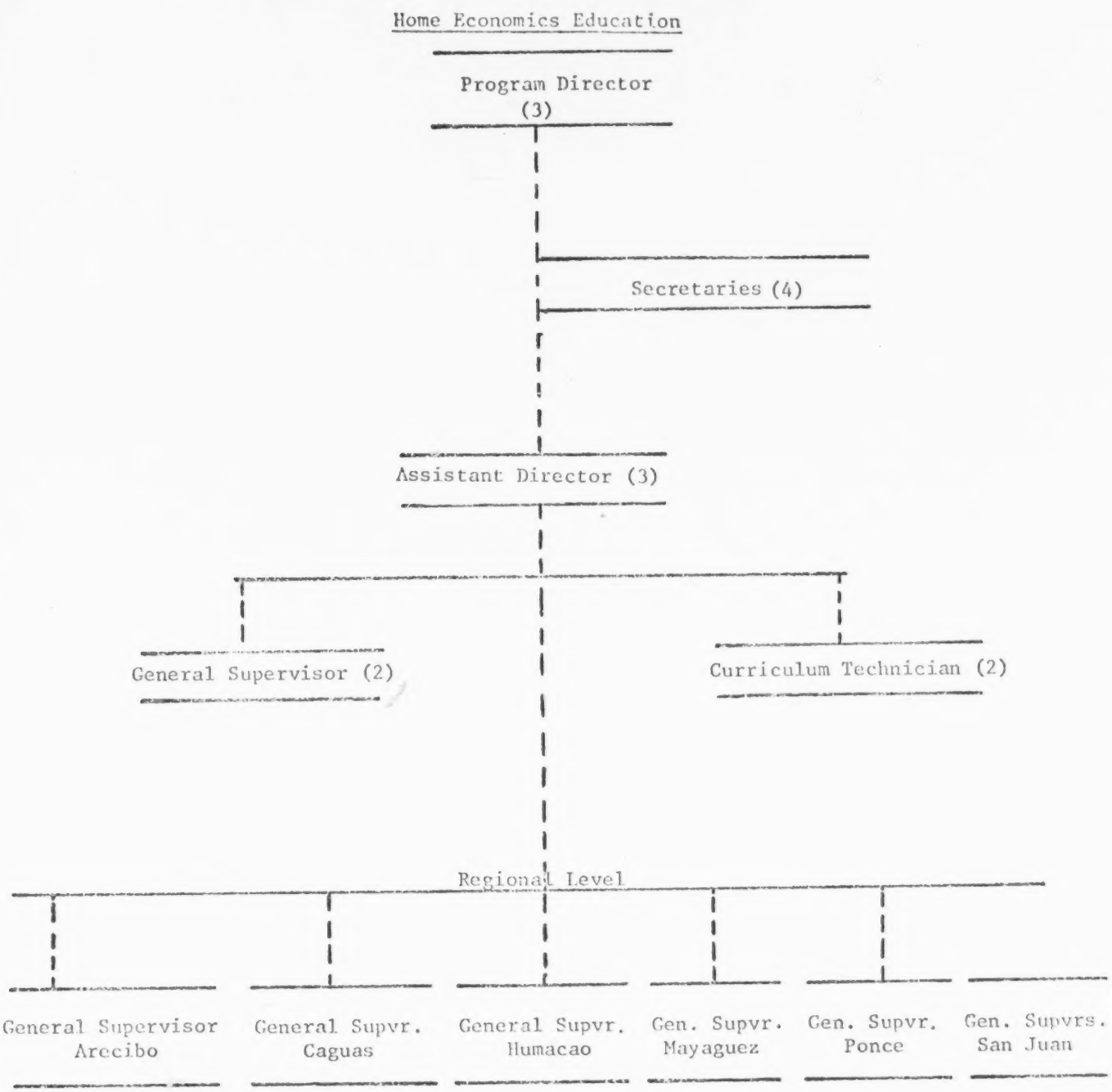
. Assistant Director of Future Farmers of America

. Assistant Director of Operations

The Assistant Director of Administration should be responsible for coordination of equipment purchases, personnel and school facilities. He should be the Program Director's principal assistant in the development of plans and budgets and in the preparation of reports of operations. We believe that considering the projected level of program operations for the coming fiscal year, it will not be necessary to add additional positions to the administrative function of the Program.

The Assistant Director of Operations will oversee all field operations (including the specialized schools) of the Program and closely follow up the implementation of the approved plans. He will have four General Supervisors to assist him to accomplish these functions.

PRESENT ORGANIZATION CHART



The Supervisors will be assigned as follows:

- Adult Programs - a staff advisory position. This Supervisor will implement his recommended actions through the Assistant Director of Operations.
- Specialized Schools - will be able to implement actions directly.
- Region Grouping "A" - responsible for field operations in the San Juan and Arecibo Regions.
- Region Grouping "B" - responsible for field operations in the Ponce, Mayaguez and Caguas/Humacao Regions.

The establishment of the administrative units at regional level and the introduction of an Assistant Regional Director of Vocational and Technical Education in each region will enable the present regional Supervisors to work more effectively and to spend less time in administrative matters. For this reason, and since the projected level of teachers for the next fiscal year is equal to the current year, no additional reinforcement is recommended in the number of Regional Supervisors for this Program.

Two secretaries should be assigned to this Program; one should be assigned to the Program Director, the other to the Assistant Directors.

HOME ECONOMICS EDUCATION

The Home Economics Education Program should be restructured organizationally as follows:

The Director of the program should have three Assistant Directors reporting to her; an Assistant Director of Administration, an Assistant Director of Wage Earnings and Adult Home Making Programs, and an Assistant Director of Operations.

The Assistant Director of Operations should be responsible for all operational aspects of the Program in the field. He should have two General Supervisors

reporting to him: Each Supervisor will be responsible for three educational regions - one should have responsibility for the San Juan, Mayaguez and Humacao Regions and the other should be responsible for the Ponce, Arecibo and Caguas Regions.

The current organization shows specialization of supervision at central level (regular program, adult and "out-of-school" Program); however, the regional organization does not follow the pattern as relatively low enrollment in the special group courses does not justify independent regional supervision. We believe that in order to better coordinate the control of operations, the supervision at central level should be unified under the Assistant Director of Operations.

The Assistant Director of Wage Earnings and Adult Home Making Programs should provide technical assistance to the Assistant Director of Operations in the development, implementation and control of courses reaching these special groups.

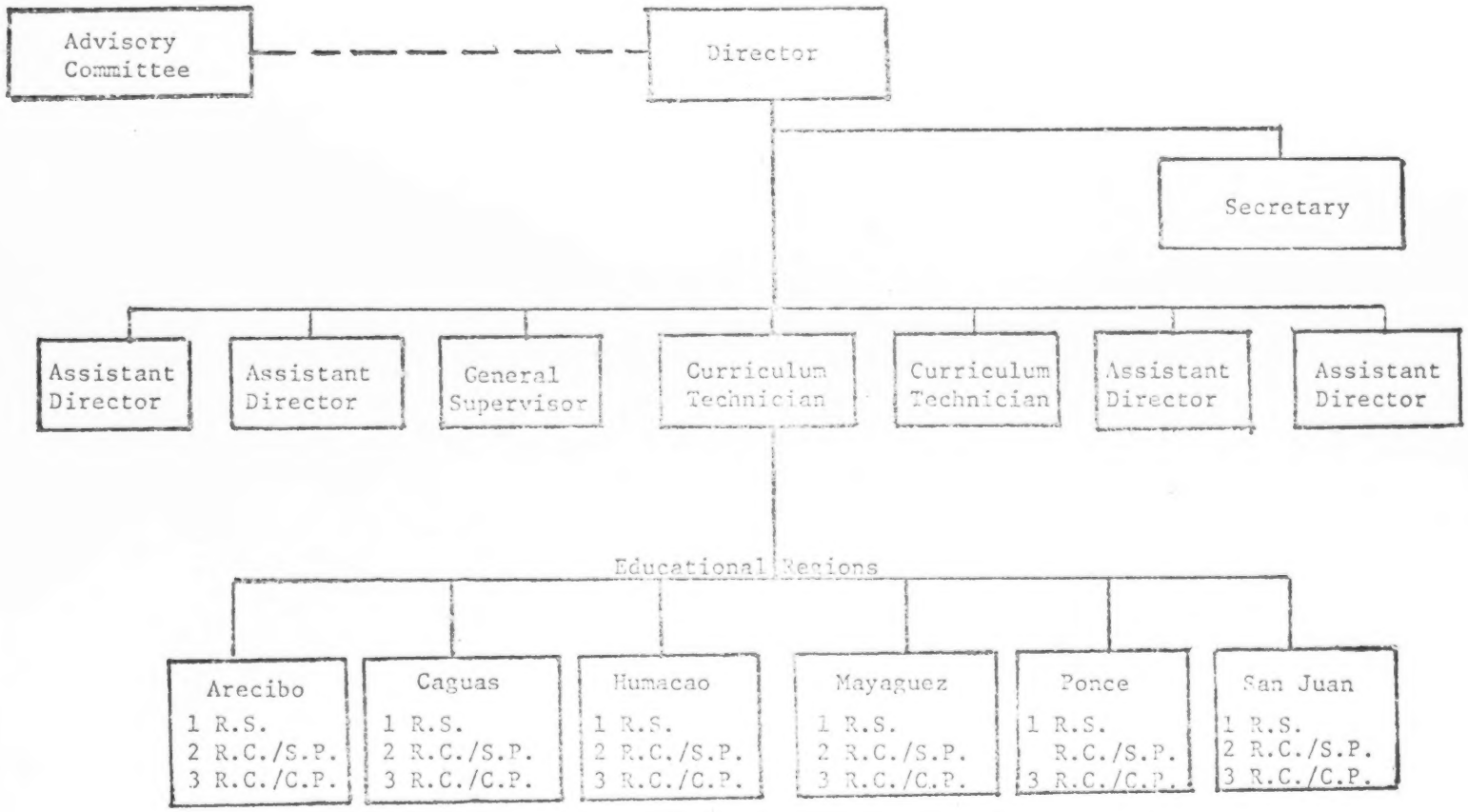
The Assistant Director of Administration retains responsibility for coordination of purchasing and personnel activities as well as assisting the Program Director in planning and budgeting activities and in preparing reports of operations.

Training and curriculum development activities should be transferred to the appropriate area level units charged with those responsibilities under the recommended organization. Two of the four secretaries should be transferred to the central secretarial pool. The remaining two secretaries, one should be assigned to the Program Director and the other to the three Assistant Directors.

We recommend the reinforcement of the Regional General Supervisors by increasing the present number by six. All supervisors will be responsible for operations of the regular and the special programs conducted by Home Economics Education.

PRESENT ORGANIZATION CHART

Business Education

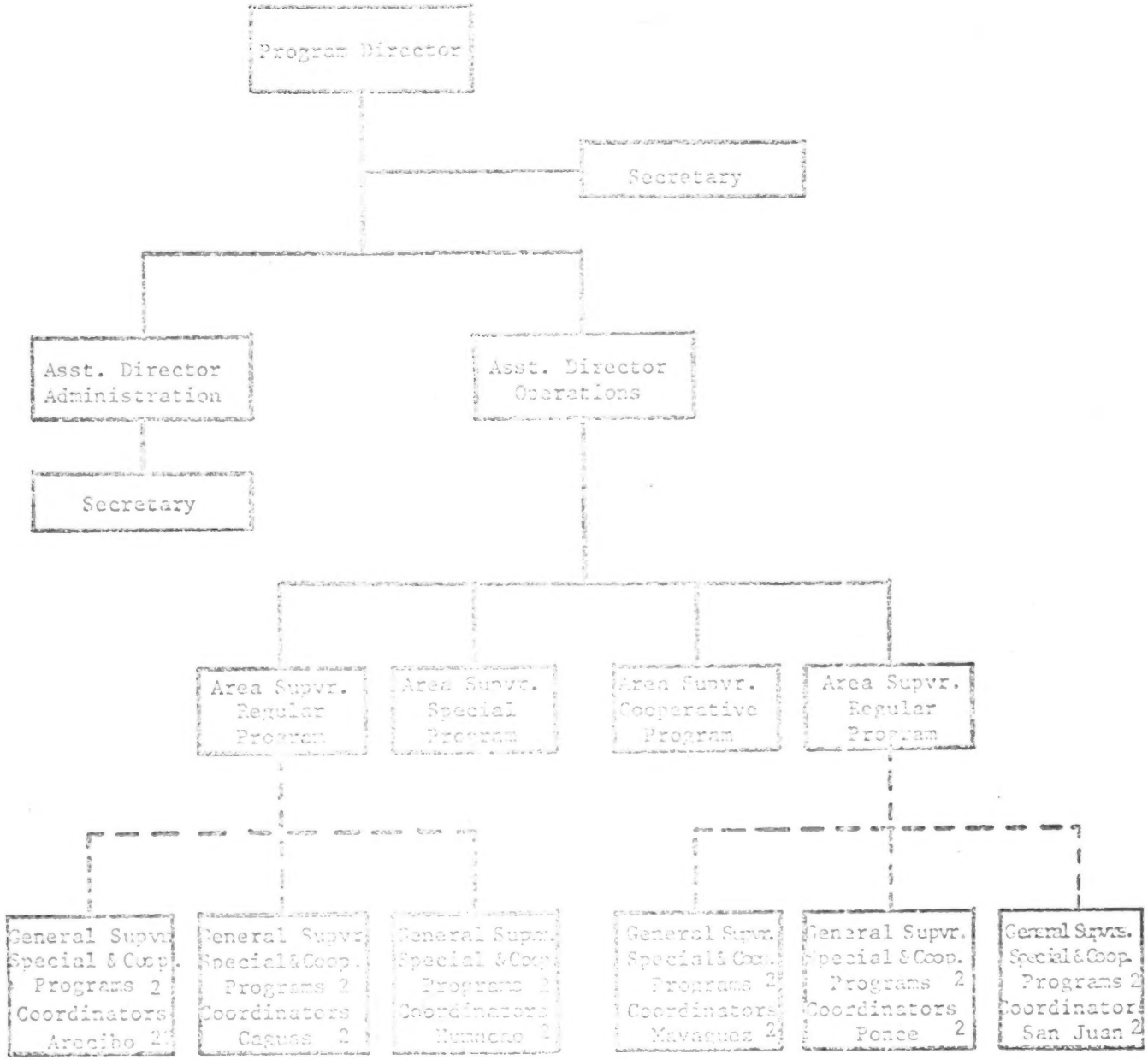


CODE

R.S. = Regional Supervisor
R.C./S.P. = Regional Coordinator/Special Program
R.C./C.P. = Regional Coordinator/Cooperative Program

RECOMMENDED ORGANIZATION CHART

Business Education


Program Director
Secretary
Asst. Director Administration
Asst. Director Operations
Secretary
Area Supvr. Regular Program
Area Supvr. Special Program
Area Supvr. Cooperative Program
Area Supvr. Regular Program
General Supvr. Special & Coop. Programs 2 Coordinators Arecibo 2
General Supvr. Special & Coop. Programs 2 Coordinators Caguas 2
General Supvr. Special & Coop. Programs 2 Coordinators Humacao 2
General Supvr. Special & Coop. Programs 2 Coordinators Mayaguez 2
General Supvr. Special & Coop. Programs 2 Coordinators Ponce 2
General Supvr. Special & Coop. Programs 2 Coordinators San Juan 2

BUSINESS EDUCATION

The Business Education Program should reflect the organizational philosophy expressed in the organization structure recommended for the Programs at the Central Level. Two major functions, each headed by an Assistant Director, should report directly to the Program Director: Operations and Administration.

The Assistant Director of Operations should be responsible for all operational aspects of the Program in the field. To properly distribute this workload, we recommend that four positions be created directly under him. These positions would be manned by General Supervisors as follows:

- General Supervisor of Special Programs
- General Supervisor of Cooperative Programs
- General Supervisor of Regional Group "A", which includes the educational regions of San Juan, Arecibo and Mayaguez
- General Supervisor of Regional Group "B", which includes the educational regions of Ponce, Humacao and Caguas

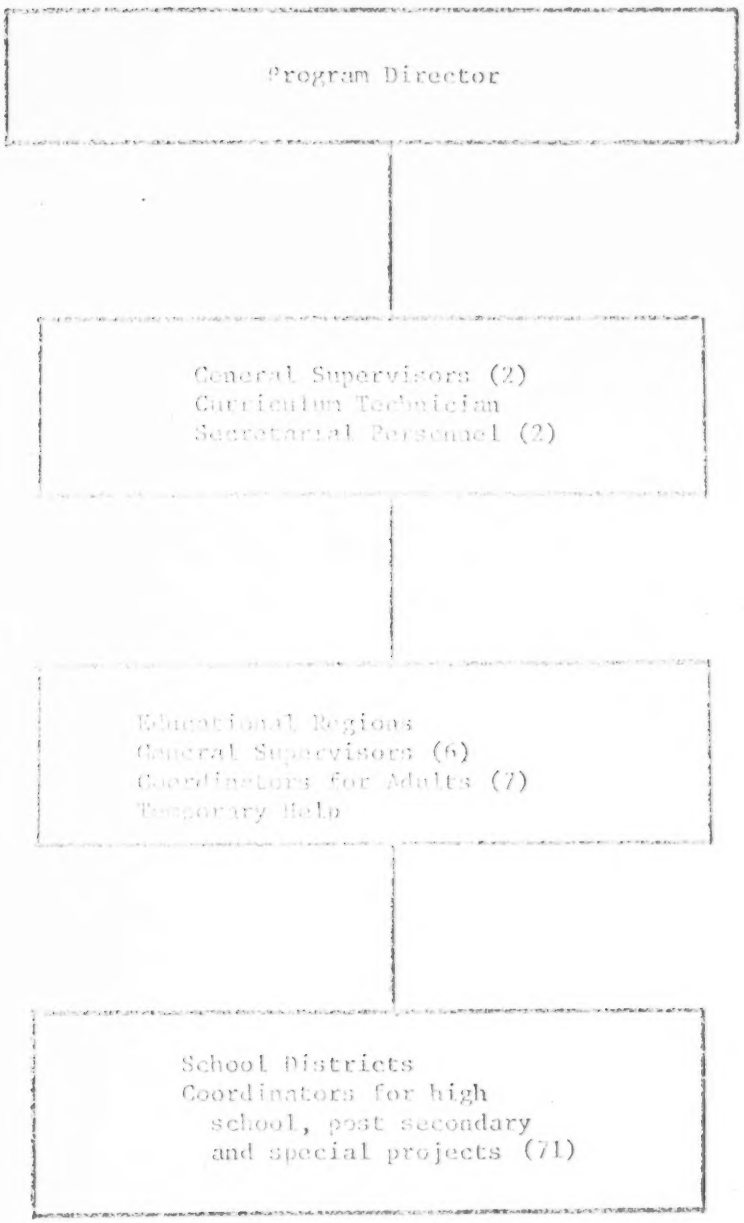
All curriculum and teaching materials development functions and the related positions should be transferred to the proposed central level curriculum group.

The present configuration of regional coordinators for special programs, and of regional coordinators for cooperative programs - one coordinator per region - should be maintained. However, the staff of Regional General Supervisors for the regular program should be strengthened by adding one General Supervisor for each region.

The Assistant Director of Administration should have responsibility for purchasing, personnel and equipment in addition to assisting the Program Director in the areas of planning, budgeting and reporting of operations. After examining

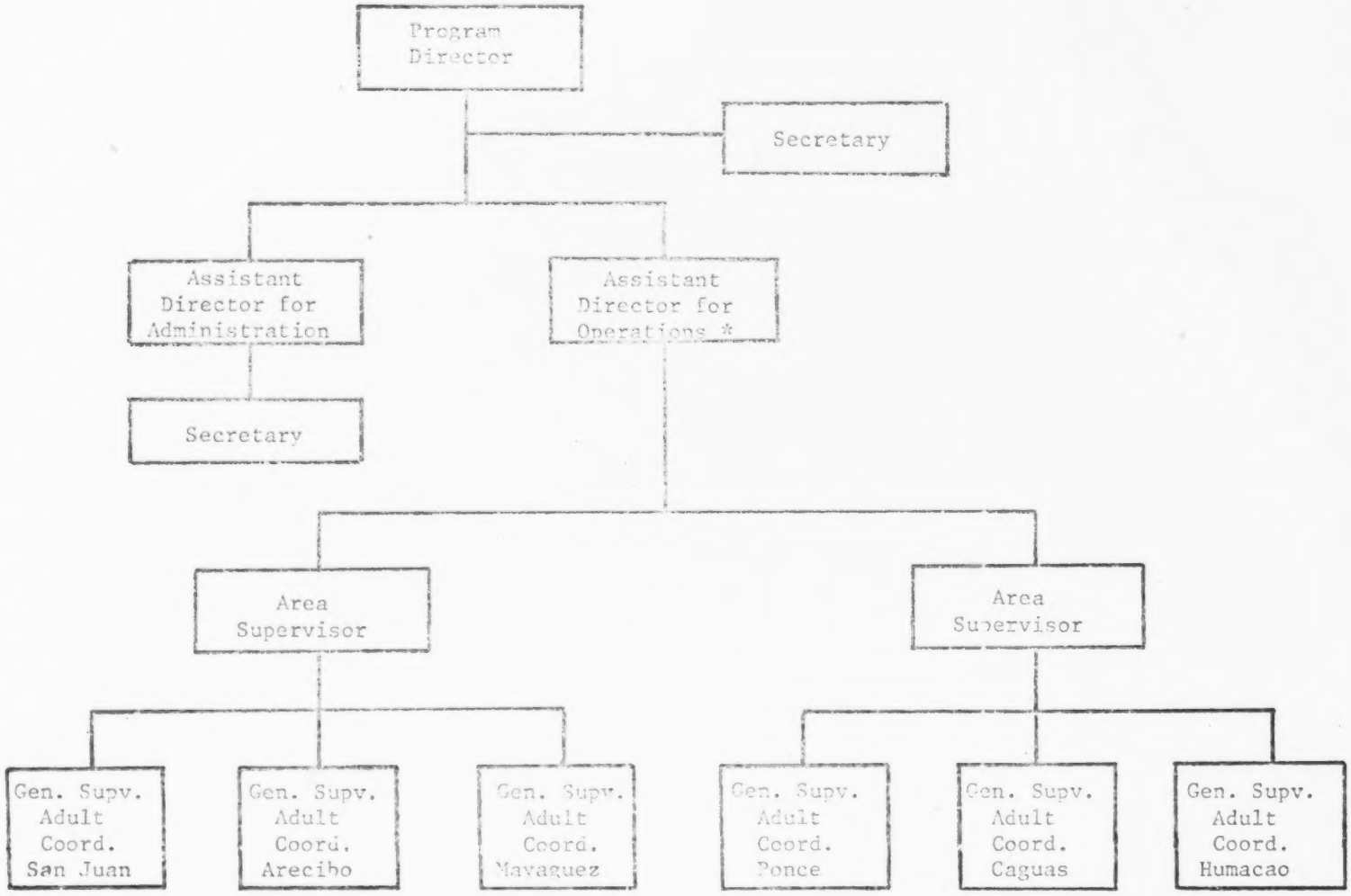
PRESENT ORGANIZATION CHART

Distribution and Marketing Education



RECOMMENDED ORGANIZATION CHART

Distribution and Marketing Education



* Position should be filled up when program reaches an enrollment of approximately 18,000 students.

the fiscal projections for the next year, additional staff is not necessary for the Assistant Director of Administration to accomplish his functions effectively. We believe that the majority of problems that came up in the past with regard to purchases and appointments of personnel, will be resolved at the regional level with the addition of the Assistant Regional Director of Administration and his staff.

Two secretaries - assigned to the Program Director, and to the Assistant Directors respectively - should be permanently assigned to the Program.

DISTRIBUTION AND MARKETING EDUCATION

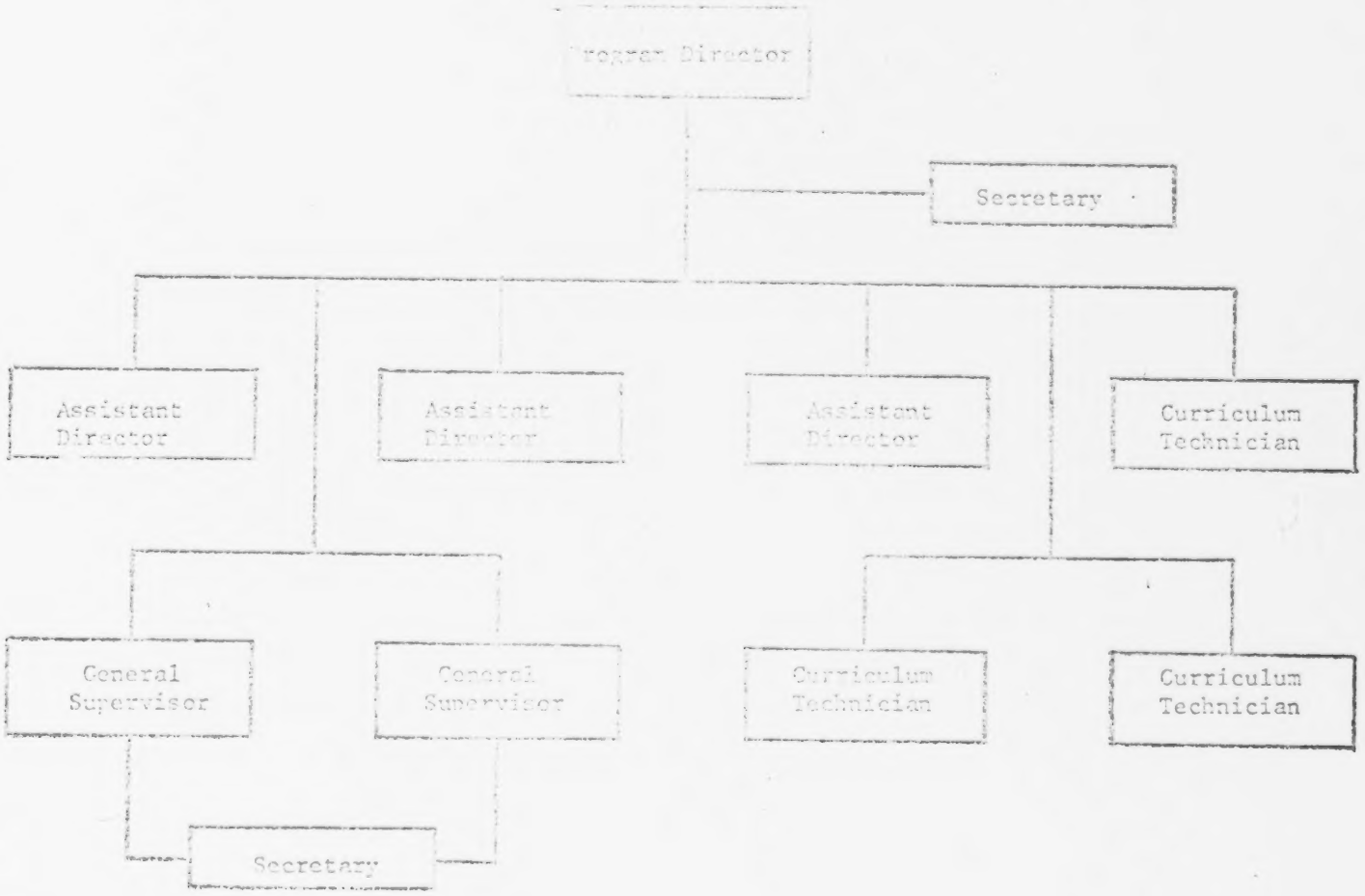
The Distribution and Marketing Education Program does not have a clearly defined organizational structure and assignment of functions. We recommend that in order to achieve a better degree of operating effectiveness, the Program should be restructured organizationally and functions should be clearly defined and assigned.

The Director of the Distribution and Marketing Education Program should have two positions reporting directly to him - an Assistant Director of Administration and an Assistant Director of Operations. Considering the present enrollment in the Program, we recommend that the position of Assistant Director of Operations should not be established at this time; however, we do include it in the proposed organization chart as we believe that it will be necessary when the program achieves a total enrollment of approximately 18,000 students.

The Assistant Director of Administration will be responsible for coordination of purchases, personnel appointments, and for assisting the Program Director in matters related to program planning, budgeting and preparation of reports of operations. Training and curriculum development functions should be removed to the area level units charged with those responsibilities.

PROJECT ORGANIZATION CHART

Vocational Guidance



The Assistant Director of Operations will be responsible for all matters related to field operations of the Program. He should have two Area Supervisors reporting directly to him at central program level - one responsible for the San Juan, Arecibo, and Mayaguez Regions, the second one responsible for the Ponce, Caguas, and Humacao Regions.

The present levels of staffing at regional level - seven Coordinators for Adult Programs and six General Supervisors - appear adequate when the projections for program growth for the next fiscal year are taken into consideration. We recommend, however, that an additional position of Coordinator for Adult Programs be established when total enrollment for this category reaches 9,000.

This Program should retain one secretary.

REGIONAL GUIDANCE

The organization structure of this program is product oriented. The structure apparently evolved gradually as new programs were implemented or the need for a specific activity became apparent. The result is a product oriented organization structure in which similar tasks should be grouped in a more effective way. We recommend to reorganize this program in four main areas following the recommended organizational structure guidelines for the central and regional levels. The Program should be structured around the following four areas:

1. Administration

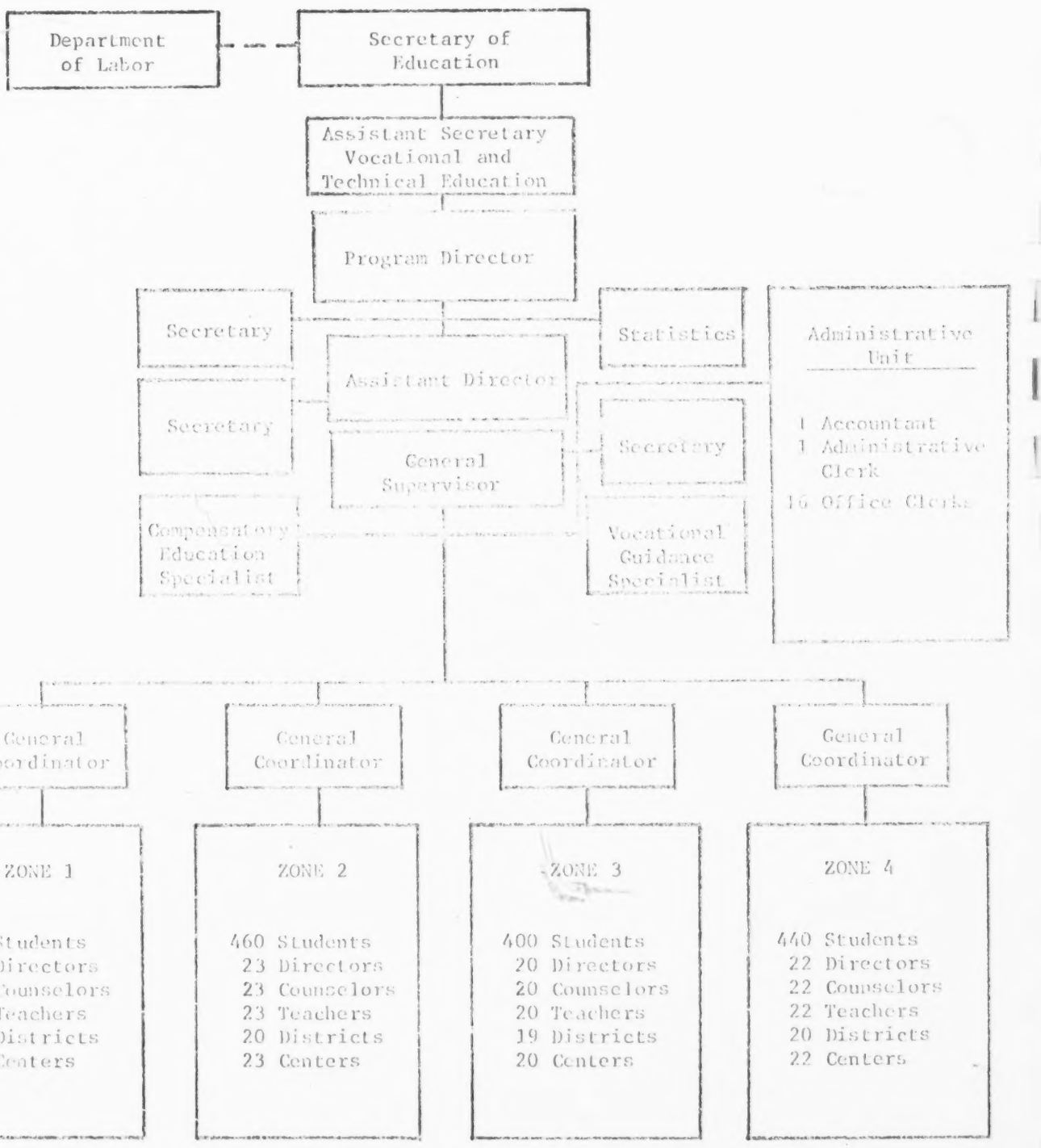
An Assistant Director of Administration should head these areas with the following responsibilities: purchase coordination, personnel appointments, budgeting, planning and monthly reports of operations.

2. Operations

An Assistant Director of Operations should head this area with operational responsibilities on all the programs. This organization is in line with

PRESENT ORGANIZATION CHART

Neighborhood Youth Corps



the lack of specialization of the Regional General Supervisors. Reporting to the Assistant Director of Operations there will be two Area Supervisors with combined operational responsibilities over the vocational counselors for elemental, rural areas and vocational schools.

3. Technical Unit

This unit will act as support or service unit to the operational group. It will be responsible mainly for the preparation of guidance films and class materials.

At the regional level, currently, a total of seven Regional General Supervisors cover approximately 408 secondary schools and nine elementary schools. We recommend to hire six additional Regional General Supervisors to bring the supervision of these guidance counselors within a more manageable ratio.

4. Follow-up

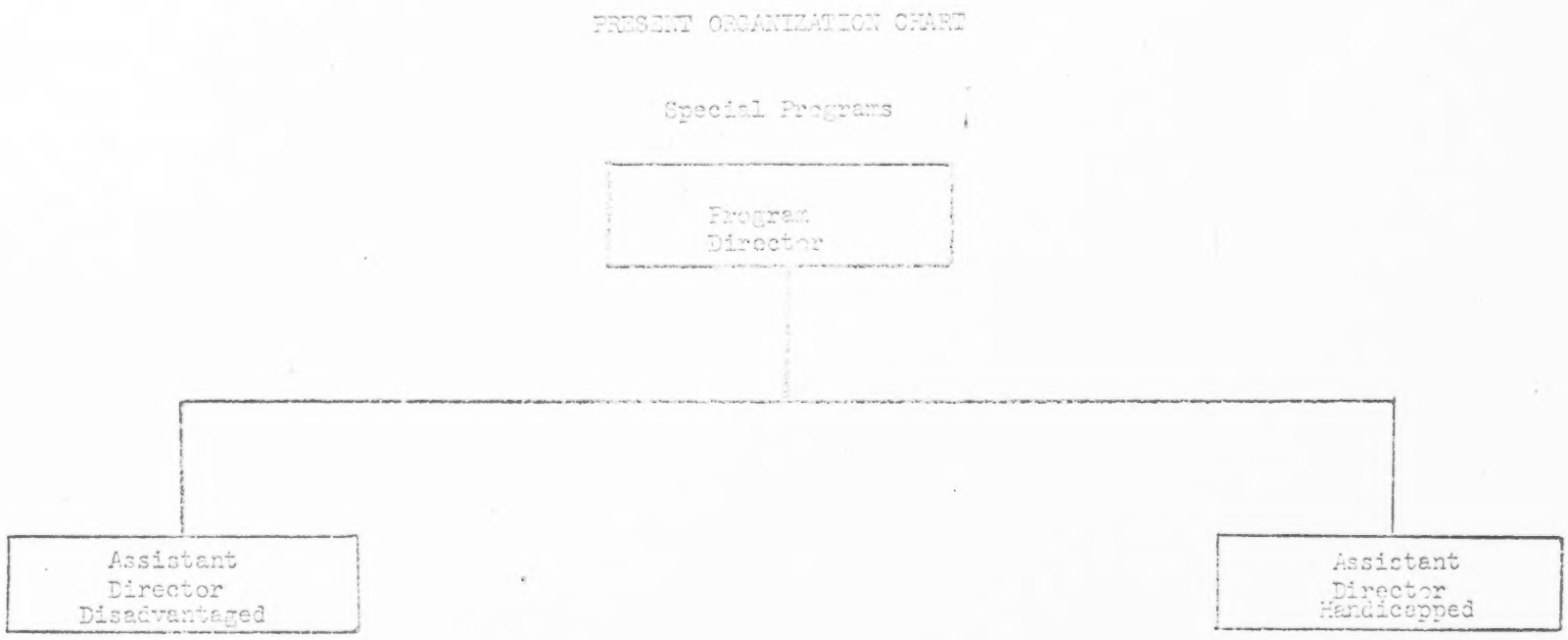
An Assistant Director for Follow-up should be responsible for the administration of the Follow-up Program. A minimum follow-up Program should include a follow-up study of graduates each year for three years after graduation and every five years thereafter. The Follow-up Program should provide data related to each individual's employment and status and an evaluation of the Vocational and Technical Education Program.

This Program should have two secretaries permanently assigned to it. We suggest that one of them be assigned to the Program Director and the other to the Assistant Directors.

NEIGHBORHOOD YOUTH CORPS

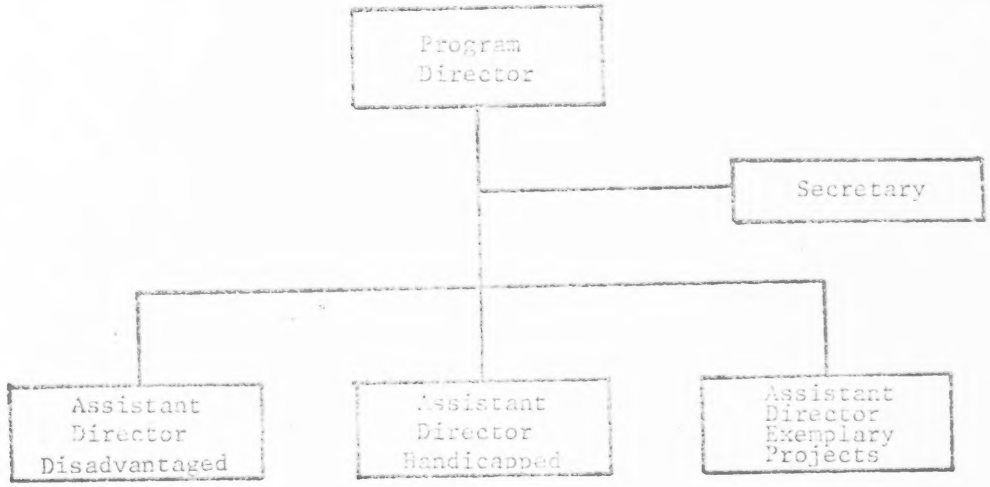
The Neighborhood Youth Corps Program has unique characteristics inherent to the kind of services offered to the students. The main function of the Program

PRESENT ORGANIZATION CHART



RECOMMENDED ORGANIZATION CHART

Special Programs



is to motivate and help retain the students in school through financial assistance, in the form of job opportunities.

The benefits derived from the services provided by this Program are directed to the general student body rather than to the students enrolled in Vocational-technical Education. The general nature of the Program implies the need to revise its organizational location in the Area of Vocational and Techaical Education. After analyzing the present structure of Neighborhood Youth Corps Program, its operational characteristics and the nature of the Program, we recommend that the Program be taken out of the Area of Vocational and Technical Education. We suggest locating the Neighborhood Youth Corps Programs with the Scholarships Program of the Department of Education.

SPECIAL PROGRAMS

The Special Programs Unit will receive additional work inputs as a result of the expansion of its services to cover exemplary projects started through other laws.

We believe that in order to accommodate this additional workload and to provide a sustained level of operating effectiveness an additional position should be created at the Assistant Director's level.

The recommended organizational structure for this unit is composed of the following positions:

. Program Director

. Assistant Program Director - Projects for Disadvantaged

. Assistant Program Director - Projects for Handicapped

. Assistant Program Director - Exemplary Projects

RESEARCH COORDINATING UNIT

The present functions of the Research Coordinating Unit (Information, Research and Curriculum Development Unit), cover a wide range of activities.

This Unit renders a wide spectrum of important services to the other organizational units within the Area of Vocational and Technical Education. The unit now reports directly to the Assistant Secretary as a staff function.

We believe that the growing programs of Vocational-technical Education will require an ever increasing level of the type of services rendered by this unit. Each type of service will become more important and will have more demand as the Area of Vocational and Technical Education continues to expand. This increase in demand and scope will make the management of these services increasingly more difficult unless the organization structure for rendering these services is well equipped to handle future growth. For this reason, we recommend the separation of some of the services presently within this unit into discrete organizational entities which are better equipped from a manageability point of view. The proposed service units should be subject to the same criteria set forth in the development of the central organizational structure. Following this rationale we recommend that the functions and responsibilities of the Reasearch Coordinating Unit be distributed among the following offices and programs of the proposed organization.

Vocational Research and Curriculum Development Office:

- Vocational Research
- Curriculum Development

Professional Training Office:

- Coordination of Teacher Training
- Coordination of Research Training

Information Systems Office:

- Compilation of Educational Statistics
- Dissemination of Research Information
- Maintenance of a Research Library

Vocational Guidance Program:

. Follow-up of Vocational-technical Graduates.

The functions of Vocational Research and Curriculum Development were identified with the Research Coordinating Unit which under the proposed organization is referred to as Vocational Research and Curriculum Development. We believe that the functions of the proposed Curriculum Development Unit includes the actual development of curriculum for any vocational-technical program requiring it. A team of approximately fourteen (14) Curriculum Technicians should be established under the supervision of the Unit's Administrator. This team will act as internal consultants to the respective programs and with the sporadic cooperation of expert program personnel at central, regional and local levels will be able to accomplish in a more effective and directed way, the functions and objectives of the Curriculum Technicians now attached to invidivual programs.

The following tabulation indicated the current distribution of Curriculum Technicians among individual program units:

Industrial Arts	2
Trades and Industries	1
Vocational Agriculture	2
Home Economics	2
Business and Office Education	2
Distribution and Marketing	1
Educational and Vocational Guidance	3
Research Coordinating Unit	1
	14

We recommend the establishment of the Curriculum Technician team with the same number of positions as now exists among individual programs. However, we believe that further studies should be made on the potential efficiency of the curriculum development function to ascertain whether personnel savings can

be effected through improved utilization of a central curriculum development staff. Further studies should be also conducted to determine the relationship of the Curriculum Technician team at the central level with the curriculum technicians at the regional level.

This recommendation is in line with the general guidelines of the office of education as depicted in the organization structure of the Division of Vocational and Technical Education, Bureau of Adult, Vocational and Technical Education which was effective on November 1, 1970. The trend shown by this organization structure indicates the formation of technical core groups to service the operating units.

Following is the suggested distribution of the present position within this Unit among the proposed office and programs:

Position Title	Function	Position Class	No. of Employees	Transfer to
Educ. Resch. II	Asst. Director	Vacant	1	Voc. Resch. & Curri. Dev.
Curri. Coord.	Asst. Director	Trans.	1	Voc. Resch. & Curri. Dev.
Educ. Resch. I	Training Coord.	Trans.	1	Professional Training
Educ. Resch. I	Statistics Coor.	Trans.	1	Information Systems
Educ. Resch. I		Trans.	1	Voc. Resch. & Curri. Dev.
Educ. Resch. I	Dir. Resch. Proj.	Vacant	1	Voc. Resch. & Curri. Dev.
Curri. Tech. V	Coord. Disadv. Proj.	Trans.	1	Voc. Resch. & Curri. Dev.
Asst. Educ. Researcher		Vacant	1	Voc. Guidance Program
Asst. Educ. Researcher		Trans.	2	Voc. Resch. & Curri. Dev.
Asst. Educ. Researcher	Dissemination	Reg.	1	Professional Training
Statist. II		Trans.	1	Professional Training
Statist. III		Trans.	1	Professional Training
Sec. Personnel			2	Voc. Resch. & Curri. Dev.
Sec. Personnel			2	Information Systems

CENTRAL CLERICAL POOL

We recommend the formation of a centralized clerical pool in the Office Services Unit reporting to the Head of Administration.

The Central Clerical Pool should be headed by a Supervisor.

The basic functions of the central clerical pool are:

1. Writing reports and other correspondence that cannot be handled by the individual programs.

2. Providing temporary secretarial help when a program's secretary is absent.

3. Filling permanent vacancies within the A.V.T.E.

Policies and procedures would be established to regulate the kind of reports and other documents that would be typed by the Central Clerical Pool. Reports that can be written by the secretaries located in the Programs should not be given to the clerical pool. It is important that a system be implemented to insure the proper and effective functioning of the office.

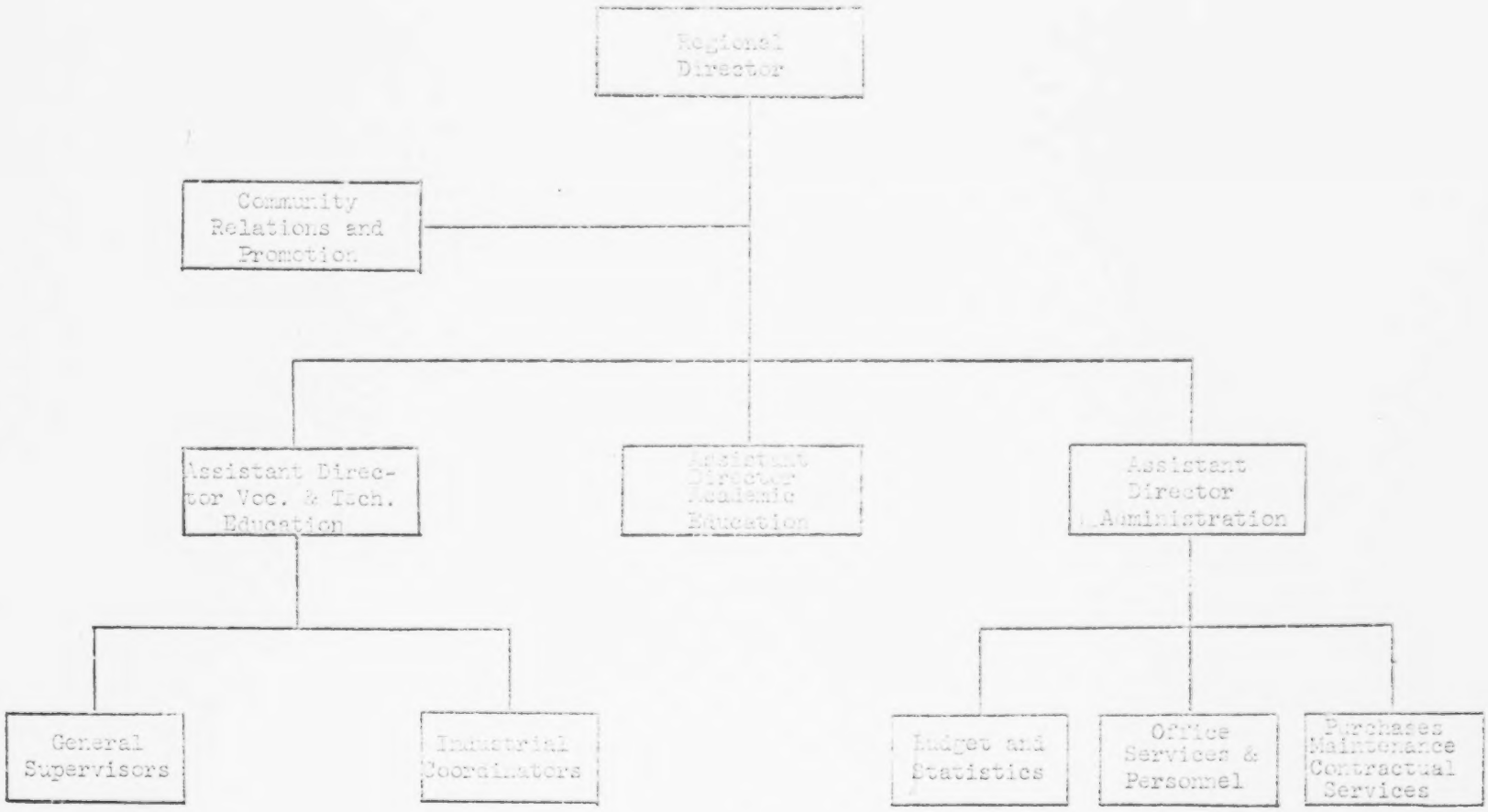
The office can also be used as temporary secretarial help to the Programs. If a secretary of a Program Director or Assistant Director is absent a secretary from the central pool can substitute her.

The Central Clerical Pool should be used as a placement source for secretarial vacancies within A.V.T.E.

The Central Clerical Pool, can be a helpful tool to program management, if used effectively. Reports' deadlines can be met easier if a schedule of work to be performed by the clerical pool is implemented and followed. We also believe that if the Central Clerical Pool is in operation a Magnetic Tape Selectric Typewriter (MT/ST) should be purchased or rented. If the MT/ST proves to be effective to the clerical pool, similar typewriters could be added at a later date.

RECOMMENDED ORGANIZATION CHART

Regional Administration - Areas of Vocational and Technical Education



The Central Clerical Pool office is a service function for the different Programs of A.V.T.E., and should consist of approximately 18 secretaries. The secretaries should be drawn from the individual program units according to the schedule shown below:

	Current	Transferred
Secretaries being transferred:		
Industrial Arts	3	1
Trades and Industries	10	7
Vocational Industrial Education	7	4
Technical Education	1	-
Vocational Agriculture	3	1
Home Economics Education	4	2
Business Education	3	1
Distribution and Marketing	2	1
Vocational Guidance	3	1
Special Programs	2	-
	38	18

REGIONAL ADMINISTRATION OVERVIEW

To improve the supervision of the operations of the vocational programs, the regional supervisory staff must have adequate time and resources to work with teachers, individually and in small groups. Supervisors are involved in several business management functions such as pricing, ordering, purchasing, delivering, checking tools, equipment, materials, and supplies. Additional time is devoted to other administrative duties such as reports, planning, public relations, and communications. The administrative duties cited are a legitimate function of supervision. However, the business management duties affect the efficiency of the supervisory function. Furthermore, both the administrative and business management duties, deny the supervisory staff the opportunity to function effectively in working with teachers to improve the Vocational Program.

To a lesser degree, the aforementioned applies also to the supervisors of the academic programs.

Considering these facts, we directed our efforts to constructing a regional organization structure which would allow the regional supervisors to readdress themselves to the basic purpose of supervision. This was accomplished by providing at a regional level those support functions which we consider essential to promote effective and efficient supervision.

ASSIGNMENT OF BASIC FUNCTIONS AND DESCRIPTION OF POSITIONS

The following paragraphs describe our recommendations on the regional organization structure. The recommended regional organization chart is illustrated on the facing page.

1. Regional Director

The Regional Director is responsible for the administration, implementation and control of educational activities within his Region. He reports directly to the Undersecretary of Education.

Each Director will have four executive positions reporting to him:

- Assistant Regional Director of Vocational and Technical Education
- Assistant Regional Director of Academic Education
- Assistant Regional Director of Administration
- Assistant Regional Director of Community Relations and Promotion

The Regional Director's responsibilities will include the following:

- Administration of the Regional Office
- Provide the necessary resources for the development and implementation of educational programs
- Review and evaluate the educational needs of the Region
- Develop the preliminary budgets for the Region
- Provide guidance and participate actively in the formulation of long and short-range educational plans

- Report progress achieved against objectives to the Department level.

- Provide the initiative for changes in the Vocational Education Curriculum.

- Research and develop possible changes in curriculum for those academic programs for which those activities have been delegated to the Region.

- Coordinate information and promotion efforts with the Public Relations Office at Department level and with the Interagency Relations and Promotion Head at the A.V.T.E. level.

- Recommend type and frequency of professional training programs.

- Evaluate performance of those reporting to the Regional Director.

2. Assistant Regional Director of Vocational and Technical Education

The Assistant Regional Director of Vocational and Technical Education will be responsible for the administration, implementation and control of all vocational and technical education programs operating within his Region. He reports directly to the Regional Director.

Reporting to him will be the General Regional Supervisors, and the Industrial Coordinators.

This Assistant Regional Director will have the following functions:

- Supervision of all the General Supervisors and Industry Coordinators of Vocational Education in his Region.

- Coordination with Program Directors for the implementation of the programs.

- Coordination of the effective inter-administrative unit functioning.

3. Assistant Regional Director of Administration

The Assistant Regional Director of Administration will be responsible for administrative matters at regional level such as personnel, purchases,

budget, statistics, supplies, maintenance of facilities and equipment and office services. He will report directly to the Regional Director.

The Assistant Regional Director of Administration will have the following principal duties:

- Direct and expedite processing of personnel matters such as appointments, vacancies, absences, transfers, reassignments, certifications, scholarships, etc.
- Coordinate and recommend rental of facilities, expansion and remodeling of facilities and construction of new schools.
- Supervise payment of rents, purchases of equipment and supplies, processing of bids and supply contracts.
- Administer availability and utilization of office services such as secretarial help, copying services, supplies, etc.
- Development of the annual budget for the Region's Vocational Education Programs, in close coordination the Assistant Regional Director for Vocational and Technical Education.

He will have direct supervision over the following administrative units:

- Budget and Statistics Unit
- Purchases, maintenance and contractual services Unit
- Office services and Personnel Unit

4. Coordinator of Community Relations and Promotion

The Coordinator of Community Relations and Promotion will report directly to the Regional Director. His basic function will be to assist the Regional Director in all matters pertaining to the Department's relations and communications with the Region's community.

The Coordinator of Community Relations and Promotion will have the following responsibilities:

- Promotes, through special programs and the mass media, the activities and services provided by the Region's programs.
- Coordinates the publishing of all periodic publications at the regional level.
- Coordinates the release of educational information throughout the Region.
- Reviews and evaluares the community relations activities of the Region.

5. Regional General Supervisors

The scope of our review was limited to the upper echelon administrative positions within the Vocational and Technical Education Program. Accordingly, a detailed analysis was not made of the General Supervisor's coverage efficiency in terms of evaluating the number of teachers that can be adequately supervised or the number of schools or districts which can be covered effectively.

However, our observations indicate that this analysis is essential as part of an overall effort to improve supervisory effectiveness. A start towards this would be made by the appointment of an Assistant Regional Director of Vocational and Technical Education.

We, therefore, recommend that further studies be conducted to ascertain the proper mix of teachers, territories, and supervisors.

TRANSITORY POSITIONS

The use of transitory personnel to staff important management or technical positions provides a convenient short-term measure to augment a Unit's manpower in order to meet increased responsibilities and workload. However, due to the lack of continuity, additional training time and expense, and high turnover which are inherent in this method, we believe that its use should not be extensive.

We recommend that, for personnel requirements that are identified as continuing, the positions be classified and proposed in the budget as permanent from its inception.

We understand that in the past this has been a difficult and many times unsuccessful process; however, we believe that under a functionally-defined organizational structure such as that which is proposed in the preceding sections, the justification of budget requirements for additional permanent positions will be much more factual and will achieve a higher degree of success.

MULTI-PROGRAM TRAINING FOR GENERAL SUPERVISORS

The A.V.T.E. offers a wide range of educational services and technical training courses to a student population with different ages, educational and social backgrounds. These services and training are offered through a number of programs supervised by the Regional Supervisors assigned to the educational Regions. The Supervisors become the nexus between the central level that plans and controls the programs and the teachers scattered through several hundred schools where the courses are being offered. The supervision of the different programs offered requires Supervisors with a variety of skills and backgrounds. The result is a continuous and increasing need for General Supervisors at the regional level.

The advantages of the current approach are twofold:

1. Provides the Regions with Supervisors that have an in-depth knowledge of the Program.

2. Satisfies the immediate needs of the Program.

The disadvantages are the following:

1. The number of Supervisors requirements increases by six every time that a new program is being implemented.

2. The time of the Supervisors is not maximized. A large percentage of his time is traveling time that could be maximized by increasing the number of teachers visited per schools.

We are, therefore, recommending to set up a training program for General Supervisors to enable them to supervise similar programs within their Regions. This training program could be organized by the Office of Professional Training recommended in the proposed organization structure.

There are certain limitations in a training program of this nature. Therefore, it should be carefully planned and preceded by a study of the types of programs that could be effectively supervised by one Supervisor.

V - PLANNING AND BUDGETING

The effective utilization of the resources of the Area of Vocational and Technical Education depends to a large degree on the quality of the planning and budgeting procedures used in the allocation of its human, financial and physical resources. This section of the report includes a description of the current planning and budgeting efforts, an evaluation of these efforts and recommendations for improvement.

DESCRIPTION OF PLANNING PROCEDURES

Current planning efforts are being conducted by the Planning and Educational Development Unit, a unit organized in 1968 to consolidate the planning functions of vocational education.

(a) Principal Planning Efforts

The following are the principal planning efforts conducted by the A.V.T.E.:

1. Puerto Rico Plan for Vocational and Technical Education under the Vocational Educational Amendments of 1968. This Plan, issued in June, 1970, is divided in three parts:

   . Administrative Provisions

   . Four-year Plan

   . Fiscal Year 1971

2. The next comprehensive planning effort is a Four-year Plan for Vocational and Technical Education, 1972-75. This Plan had not been released as of the date of writing this Report.

(b) Budgetary Planning

The most important planning effort carried out on a regular basis is the preparation of the Annual Plan. A description of the procedures

involved in the preparation of the annual budget and an evaluation of these procedures are presented in subsequent paragraphs of this section.

EVALUATION OF PLANNING

The planning efforts of the A.V.T.E. were analyzed in terms of the following criteria:

1. Comprehensive nature of the planning effort
2. Relationship of plans to goals and objectives
3. Systematic approach: evaluation of results against objectives
4. Adequacy of the information available upon which plans may be based.
5. Frequency of the plan revision
6. Planning procedures

(a) Comprehensiveness

Comprehensive planning considers the allocation of all resources available to A.V.T.E., the interaction resulting among the various administrative units as a result of certain decisions and the allocation of resources after the establishment of A.V.T.E. priorities.

The established practices for obtaining federal funds do not lead to a full all-inclusive planning. The planning effort is geared to programs and proposals preparation. This is due to the federal funding process of most programs that require the preparation of proposals for programs and subprograms. Each program tends to become an independent unit from a planning point of view. Since current planning is done on a program basis, under current conditions of personnel shortage and time pressures, there is little opportunity for analysis of program coordination.

Currently, the planning unit has to work under conditions that are not conducive to a comprehensive planning effort. The information received from Program Directors is not complete; the large volume of planning output required and the pressure of meeting deadlines is further aggravated with the additional duties of preparing progress reports for different programs. We recommend to strengthen this unit to improve the all-inclusive planning at central level and obtain an overall coordination of all programs in order to establish a list of program priorities within the A.V.T.E.

(b) Relationship of Plans to Goals and Objectives

During the course of the study, we examined different program plans prepared by the A.V.T.E. The overall statement of goals and objectives was clear. However, the quantification of those objectives as a basis for resource allocation should be strengthened.

Our review indicated that certain Program Directors had well developed plans with activities directly related to the objectives. In other instances, the relationship of the activities described to overall program objectives could be strengthened.

The planning and budgeting function at Program Director level should be reorganized. The Regional Supervisor should have greater participation in the planning and budgeting process. At the same time they should receive specific instructions on the type of information, the degree of detail required and the presentation format of that data.

In another section we are explaining our understanding of what should be an integrated planning and budgeting effort. We are indicating at this point that it is difficult to accomplish objectives if the different activities involved do not carry target dates. The interaction of the several

organizational units cannot be properly organized unless there are specific target dates and the management of each administrative unit works towards those dates.

The A.V.T.E. goals and objectives are defined in broad terms such as "provide opportunity of technical and vocational education to secondary level students" or "increase the occupational competence of employed adults" that cannot be quantified in terms of progress or growth. The objectives of these programs involve the acquiring of skills or changing of attitudes that are difficult to measure to determine the Program's results. Difficult as they are, the limitation of the financial and human resources available, the necessity of selecting the type of programs and the geographical areas where their benefits could be maximized, requires the adoption for A.V.T.E. of a more formalized program planning, progress measurement and evaluation techniques. Currently, these requirements need further integration into the management of program operations.

(a) Systematic Planning

The A.V.T.E. planning efforts include the preparation of the four-year Plan and the Annual Plan.

The approach to its preparation is somehow systematic. Each Program Director prepares his budget and submits it to the Planning and Educational Development Unit. This Unit provides a wide range of assistance to the Program Directors, and in some instances, this assistance amounts to the preparation of the budget.

To improve the planning functions and to better evaluate the results of a One-year Plan against objectives, there is a need to state objectives more clearly which can be measured within a time period.

(d) Availability of Management Information

Planning decisions should be based on adequate information. This means that the information must be available in a format ready for analysis and decision making. A.V.T.E. is continuously experiencing a lack of information feedback from the educational regions. The lack of statistical information on the courses being given and on the regional needs hinders the planning process at central level.

Our study leads us to the conclusion that the information available for formal planning should be improved in terms of accuracy and timeliness.

(e) Periodic Plan Revision

The Four-year Plan is not revised or adjusted annually. Since this program is used as a basis for the preparation of the Annual Plan, discrepancies may occur due to changes in program emphasis not forecasted in the Four-year Plan. The revision of the Four-year Plan should be implemented on an annual basis.

(f) Planning Procedures

Currently, the Planning and Vocational Development Unit is in charge of the planning efforts. This Unit distributes to each Program Director a guide to prepare the Annual Plan. The head of the unit then assists some Program Directors and practically prepares the Plan for others. We believe that the Program Directors should be given some specific guidelines and orientation on the preparation of the Annual Plan; however, actual preparation of the Plan should be the responsibility of the Program Director. The Planning Unit should then coordinate and consolidate these plans and make an overall evaluation of resources and priorities.

VI - BUDGETING PROCEDURES

The preparation of the budget for the Area of Vocational and Technical Education consists of the following two elements:

. Federal Budget

. Commonwealth Budget

FEDERAL BUDGET

The preparation of the Federal budget for the next fiscal year usually begins in January or February of the current fiscal year. The procedure is coordinated by the Planning and Educational Development Unit. This Unit distributes to the Program Directors preliminary data based on the Five-year Plan. The budget of the different programs is then consolidated and reviewed by the Assistant Director of Administration and finally submitted to Washington before June 30 of the current fiscal year.

COMMONWEALTH BUDGET

The preparation of this budget requires a longer lead time. For instance, the budget for the fiscal year 1972-73 will be submitted to the Secretary of Education and the Office of Management and Budget before November 15, 1971. The Budget Unit begins its preparation around March, 1971 in coordination with the Program Directors.

EVALUATION OF BUDGET PROCEDURES

(a) Responsibility for Budgeting

The head of the Budget Unit reports to the Assistant Director of Administration. This Unit provides technical assistance to the Program Directors who are responsible for the preparation of the budgets. The Unit is

also responsible for the overall coordination of the final budget for the Area of Vocational and Technical Education. The Unit is assisted by the Assistant Director of Administration. Other top personnel review and make adjustments to the final budget. We recommend that the responsibility and the roles played by the various parties in the preparation of the budget be more clearly stated.

(b) Determination of Needs

In most instances, budget requests originate from Program Directors located at the central administration level. Generally, input is not received from the Regional General Supervisors where the programs are conducted. With the establishment of the recommended position of Assistant Director of Vocational and Technical Education at the regional level more participation from the General Supervisors will be obtained.

(c) Budget Format

The budget format includes a line item presentation for the various budgetary accounts with provisions for the accumulation of expenditure totals by students or other program grouping. There is also information on the actual amount of the prior and current years' revenues and expenditures.

We recommend the inclusion of a manning table or other statistical indicator showing the number of approved budgeting positions for each salary account.

(d) Budget Review Procedures

Changes in federal grants and program requirements bring about the need for a revision in the annual operating budget. These changes are not reflected in the budget. We recommend to set up a systematic review process through which each reserve and expenditure item in the budget is analyzed and adjusted to acknowledge those changes.

RECOMMENDED IMPROVEMENTS

The planning and budgeting functions are closely related activities. The A.V.T.E. should develop an integrated planning and budgeting system based upon clearly stated goals and objectives that should provide the following:

- Identification of vocational education needs
- A multi-year financial plan
- Development of a program structure to satisfy the planned needs.
- Development of a hierarchy of programs
- Development of measurable activities within each program.
- Allocation of all the resources available to the A.V.T.E. (personnel, financial, facilities, etc.).
- Coordination of the integration between different programs and other government agencies carrying out similar programs.

The development of a system with these criteria will improve the current planning procedures, facilitating the decision making process for the allocation of resources. The system will:

1. Organize A.V.T.E. operations in terms of objectives
2. Estimate the cost of these activities within time periods
3. Relate activities and their costs to the outputs

Specific characteristics of the integrated planning and budgeting system are discussed in Appendix A.

VII - SYSTEMS AND PROCEDURES

Our review of the organization structure shows certain systems and procedures that could be improved to increase the administrative efficiency of the A.V.T.E. This section of the report is devoted to recommendations for systems and procedures improvement.

STATISTICAL SERVICES

The A.V.T.E. statistical requirements are heavy and varied. Two internal units in the A.V.T.E. request statistical information. The Planning and Educational Development Unit receives data from School Superintendents and Regional Directors. This data is duplicated to a large extent in the reports sent to the Research and Curriculum Development Unit (R.C. Unit) by the Program Directors. This is basically the same information reworked in different forms.

The Planning and Educational Development Unit uses the information received for the preparation of the Four-year Plan and the progress reports. The Research and Curriculum Development Unit uses the information to fulfill the reporting requirements of the U.S. Department of Education. Program Directors indicated that the administrative burden of the regions is duplicated by submitting the same data on different forms. Some Program Directors indicated that the statistical information produced by the R. C. Unit is not readily usable by the Program Directors.

The problem has been aggravated lately by new U.S. regional reporting requirements. The A.V.T.E. belongs now to the Eastern District Region with different statistical requirements.

We recommend that a review of the overall statistical and reporting requirements be carried out. A basic all-inclusive input form should be

prepared and this information processed through a computer to generate all the different reports required internally by the A.V.T.E. and the U.S. Department of Education.

PURCHASES

(a) Findings

Current purchases procedures do not satisfy the A.V.T.E. needs. The A.V.T.E. works in a dynamic environment where the lead time between the request for training needs for a new factory and setting up of a training course could be less than four months. Within that time the A.V.T.E. has to prepare a proposal, develop the curriculum, appoint the teachers, obtain course materials, classroom and equipment facilities. Current purchases procedures take too much time between the requisition and reception of the purchase.

The purchasing function of the A.V.T.E. has been taken over by the Department of Education - the Purchase Department, remains essentially a centralized order processing activity. Functions such as vendor selection, price comparisons and acceptance of quotations are centralized.

Our review indicated the following problem areas:

. Delays in the reception of merchandise.

. The centralization of the Purchase Department did not relieve the A.V.T.E. of all purchasing procedures. However, all purchasing personnel was transferred to the central level Purchase Department. As a result, A.V.T.E. had to hire additional personnel to carry out certain purchasing functions. In the case of Industrial Arts, the Program Director has hired a purchase clerk to process purchases. The A.V.T.E. has problems in what apparently is an inadequate follow-up on purchase orders outstanding for an extended period. During the course of our study we did not review the operations of the central level Purchase Department, nevertheless, we were made aware of systematic efforts to review lists of outstanding purchase orders for the purpose of cancelling those which are inactive.

- Delays in the payments of invoices. The reason for this delay lies apparently in the practice followed by the central level Purchase Department of not paying an invoice until all the supporting documents are gathered. The problem here appears to be the delay in getting together all these documents that have to be processed through a large number of communication channels.

- Purchases of equipment require too many approvals. The practice of requesting signature after signature of officers in consecutively higher levels does not necessarily strengthen the internal controls of the system. For instance, from a practical standpoint, a Program Director approves a purchase order if the document has been signed by the School Director and the District Superintendent.

- Regional supervisors are not being informed of delivery dates; there is a lack of information on the status of the purchase order.

- The large increase in number of programs and volume of operations has resulted in a corresponding increase in the volume of purchases. Purchases have become a major task within the Regional General Supervisor's function.

(b) Recommendations

Current purchase procedures reduce the effectiveness of the educational task and have a demoralizing effect upon the personnel in charge of running the programs. The procedures should be reviewed to speed up the purchasing delivery cycle.

To speed up the current system it will be necessary to:

1. Reduce the number of approvals

2. Decentralize the purchases

We recommend to reduce the approvals required for the purchase orders and to tie-in this process with the budget cycle. That is, the annual budget should allocate an amount for capital expenditures for each region. The approvals for those budgeted capital expenditures should be granted at the regional level.

The decentralization of purchases will then be effective in two ways:

. Purchase approval by Regional Director

. Purchases made locally

The decentralization of purchases has several advantages and will eliminate several problems and delays:

1. Deliveries from central level would be reduced to a minimum.

2. Repairs and maintenance of equipment could be made locally.

3. Payments to the suppliers could be speeded up.

4. There would be a more direct control over the equipment purchases.

5. Planning and operations of the programs would be improved since the General Supervisor would be able to better control the delivery of the equipment and materials required for his courses.

Purchases for the A.V.T.E. are numerous and varied, this volume of activities has created as indicated before, a burden for the General Supervisors. The decentralization of the system, therefore, can be implemented only if our proposed organization recommendations are followed. We are recommending the reorganization of the regional office with the addition of an assistant Regional Director of Administration.

This Regional Director will be assisted by a purchase clerk that will take over the purchasing functions.

FORMS AND REPORTS

Our study did not emphasize this area, however, during our review, we gathered enough evidence to recommend the reduction and simplification of some forms and reports. Each program tends to develop and design their own forms. Thus, while solving the program needs, a duplication of data could be generated at the other end.

The individual program design of new forms and reports generates a time consuming process of gathering data among those teachers and General Supervisors involved. It is important, therefore, to concentrate the design activity under the supervision of a Systems and Procedures Unit.

We are recommending in the organization structure, the creation of a Systems and Procedures Unit, responsible for the approval and design of all forms required by the A.V.T.E. One of the first tasks of this Unit should be to make an inventory and study on the need and frequency of each form and report. The study should attempt to minimize the number of forms and to combine some of them to reduce duplication of efforts. This Unit will then act as an overseer for the A.V.T.E. with regards to forms control. They will combine the overall information requirement of the A.V.T.E. with the individual needs of the Programs Director.

PROPOSAL PREPARATION

The preparation of proposals is a cumbersome task that requires not only quick action but also detail attention to legal clauses.

Currently, the proposals are being prepared with different degrees of involvement by Program Directors, the Planning and Educational Development Unit and the Director of Administration.

To simplify the procedure and to reduce the number of executives involved in its preparation and revision, we recommend the preparation of model proposals and check lists.

We are aware that there are continuous changes in specifications and requirements. Nevertheless, there are enough basic clauses of a repetitive nature to accrue labor savings benefits and to increase the adherence to legal requirements by standardizing this procedure.

PERSONNEL

Procedures currently in use for processing of personnel related matters do not adequately fulfill the requirements of the Vocational and Technical Education Area.

APPOINTMENTS

(a) Findings

Our review indicates that the personnel appointments procedure is time-consuming. Numerous approvals, recommendations and endorsements have to be added to a candidate's documentation as it is routed through the "proper administrative channels." Both full-time and part-time teacher appointments appear to follow the same procedure.

If a candidate is proposed for more than one part-time teaching position, the appointment procedure is repeated as many times as the number of part-time positions approved. A teacher contracted for three part-time courses generates three different appointments.

It was frequently indicated to us during our review that appointment processing frequently took up to two months. This delay causes significant difficulties in the organization of courses that depend on contracts with other government agencies (such as the Manpower Development and Training - M.D.T.A. - courses contracted with the Department of Labor).

Due to the long lead time required for M.D.T.A. teacher appointments, the teachers are recruited long before the courses' opening date. If courses are, for any reason, cancelled shortly before starting, the teacher's contract with M.D.T.A. has to be cancelled. This results in undue hardship to the teacher and lost effort for all personnel involved in the appointment process.

It was also determined that there is rarely any feedback of information to the unit originating the appointment of the teacher.

(b) Recommendations

To simplify the appointment process, to reduce its cycle time, and to improve the feedback of information we recommend the following schedule of approvals:

NONTEACHING PERSONNEL

Position Appointed	Approving Levels: District Superintendent	Reg. Dir.	Program Dir.	Dir. of Instruction	Asst. Sec. A.V.T.E.	Sec. of Education
Coordinator		x	x	x		
General Supervisor		x	x	x		
School Director	x	x			x	x
Assistant Reg. Dir.		x		x	x	x
Program Director				x	x	
Program Staff			x	x		

TEACHING PERSONNEL
(within Vocational and Technical Education)

Position Appointed	Approving Levels: District Superintendent	Regional Director	Program Director	Director of Instruction	Asst. Sec. A.V.T.E.
Regular Teacher	x	x	x	x	x
Part-time Teacher	x	x	x		

PAYROLL

(a) Findings

Part-time teachers are not included in the regular payroll system. They prepare time sheets which are routed through the normal administrative channels to the central level Finance Office.

The number of signatures required on time sheets varies depending on the program and type of course, but usually the following signature blocks are provided:

. Employee rendering the service

. School Director

. District Superintendent

. Regional General Supervisor

. Program Director

The central level Finance Office has indicated to us that the only signatures required for fiscal purposes are those of the employee rendering the service and of the supervisor certifying that the services were rendered.

These unnecessary control steps delay the processing of time reports by requiring routing through more offices and restricting rapid feedback for correction of errors.

(b) Recommendations

We recommend the revision of the system of payments to part-time teachers incorporating the elimination of all approvals not required for fiscal control and the streamlining of the feedback of information to allow prompt correction of errors and minimize delay in processing.

POLICY AND PROCEDURES MANUAL

A procedure set forth in detail, step by step, is the best guide to operating personnel in the accomplishment of their tasks. The administrative procedures of the A.V.T.E. would benefit from an overall Policy and Procedures Manual.

During the course of our review, we found that certain Program Directors had prepared their own Policy and Procedures Manual. Programs such as Distribution and Marketing, Neighborhood Youth Corps, Industries and Arts, Manpower Development and Training Act, etc., had different types of manuals. These manuals differed in their format, subjects covered and the detail of the procedures described.

The Policy and Procedures Manual is a necessary tool to train new employees to standardize procedures, to speed up administrative practices, to minimize administrative supervision and guidance and to facilitate the delegation of authority.

The preparation of the Policy and Procedures Manual is the responsibility of the Systems and Procedures Unit. This Unit should set up the basic guidelines and write up the procedures with the information received from each administrative unit and Program Director.

COMMUNICATIONS

One of the problems faced by personnel, especially at the regional level, lies in the communications area. In most cases the A.V.T.E. follows the practice of sending correspondence through all the levels of supervision until it reaches the intended recipient.

This practice, coupled with the large volume of mail being processed daily, creates "bottlenecks" in certain areas, lost mail and delays.

We recommend to change this practice and have the mail sent directly to the intended receiver, the employee that has to be informed or whose action is required. This practice will not preclude the mailing of information copies to the different management levels.

The Systems and Procedures Unit should conduct a study on the current mail distribution system. This study should cover the following areas:

1. More intensive use of addressograph plates and mailing distribution procedures for circular notes.

2. Study of the number of information copies required for routine and nonroutine matters.

3. Possibility of date-stamping the correspondence.

PREREGISTRATION

Under the current personnel resources certain General Supervisors have to cover a large number of schools and teachers. They cannot devote their full attention to each course. This problem, combined with the different degree of attention and support given by school principals and teachers to the vocational education programs, result in low attendance and lack of interest in certain courses.

To increase the attendance to these courses and to insure a better course information coverage to potential students, we recommend to set up a preregistration program for vocational courses.

Preregistration procedures should begin approximately two months before the courses starting date. The following are some of the basic activities that a well-developed preregistration system should have:

1. Design and printing of bulletin notes and posters to be prepared in coordination with the Public Relations Unit.

2. Distribution of bulletin notes and posters to all schools to have them affixed to bulletin boards. This should be done two months before beginning date.

3. Presentation of course outline and distribution of course literature and application forms. Approximately one month before beginning date.

4. Mailing of package information to registered students. Approximately 15 days before beginning date indicating: classroom, course hours, etc.

INFORMATION SYSTEM

The need for more sophisticated management information system is being given a great deal of attention in government agencies. Some of the elements of program budgeting or, as it is now more commonly referred to, Program Planning and Budgeting System are being implemented by the A.V.T.E.; among those we may list planning and budgeting. Other elements such as information and reporting systems, program control and evaluation should be reorganized to achieve better management control.

The A.V.T.E. faces a unique challenge within the educational system, of working in a dynamic and changing environment. New skills are continuously required as a result of technological developments and new industries arriving to Puerto Rico.

To satisfy those needs, the A.V.T.E. has been structured in ten Operational Program Units. The special problem facing the A.V.T.E. lies in the different activities carried out and type of vocational students being trained. An effective information and reporting system required that each Operational Program be planned, programmed, budgeted and controlled as a separate entity. For each program and for each activity within the program, a Program Director should have full authority and responsibility for planning and controlling the operations, and in addition, he can be held accountable for the effective and efficient achievement of the program targets. The A.V.T.E. should design an improved information system to measure performance and to provide input to the planning procedures.

Effective utilization of an integrated planning and budgeting system depends, to some extent, upon the availability of information for purposes of decision making. We believe that to properly evaluate and analyze its program needs, the A.V.T.E. would need information within the following six major categories:

. Student statistics

. Program information

. Personnel assignments

. Facilities usage

. Fiscal data

. Regional profile data

A centralized planning and budgeting staff should be established by the A.V.T.E. The centralized staff would have responsibilities for:

. Providing the staff work necessary for the formulation of an annual operating budget.

. Assisting in the design of the integrated planning and budgeting system described above.

. Providing staff service in use of the new system, i.e., implementing the process, collecting information, summarizing and analyzing data, and recommending approaches.

. Establishing a time sequence for the process and assuring that it is followed.

. Planning and conducting in-service training in the use of the integrated planning and budgeting system.

CONTROL OF OPERATIONS

Currently, the control of the operations at the Program Director level is exercised through the Weekly Activity Report, Program Evaluation Reports and Semester Reports.

Weekly Activity Reports are basically narrative descriptions of visits made by Program Staff to the field, opening of new courses and other items oriented towards a public relations or press release type of information.

Staff meetings are effective when used in conjunction with an established progress reporting system. Periodic progress reports would point out specific situations in need of management action to be taken up in discussion at the meeting. The meeting would serve to develop an action plan to correct

the situation and the reporting system would then furnish the feedback or the implementation of that action plan.

Program Evaluation Reports and Semester Reports are more management-oriented than the Activity Reports; however, due to the low frequency of their preparation, the lack of standardization and the absence of measurement against specific milestones in a preestablished plan, their value as a management tool is significantly decreased.

An effective information system provides the tools for programs control and evaluation. Program Directors should be able to analyze and evaluate actual operations to determine whether or not operational plans were achieved in relation to overall objectives.

Each Program Director should review the results of the activities with his Regional General Supervisor. This monthly review will be directed to analyze the result of the operations against budget instead of the current monthly meeting where all the General Supervisors get together.

The information system requires an effective program budgeting system. We have discussed planning and budgeting in another section of this report. However, we should indicate here that one of the major problems facing the A.V.T.E. is the lack of information from the educational regions. Without statistical data on enrollment, drop-out rates, absenteeism and educational needs it is very difficult to prepare a budget or to produce monthly reports of operations. Our review indicates that some of the major problems facing the A.V.T.E. to obtain information are the following:

1. Teachers do not send the information required due to a combination of reasons, among them: low motivation, lack of interest on the part of the School Principal, etc.

2. The channels of communication used create delays in the information sent to the control level. The correspondence goes through the School Principal, District Superintendent and Regional Director before reaching the Program Supervisor.

3. The Regional General Supervisor has a combination of problems that add directly or indirectly to the lack of information.

- Span of control too wide. Certain supervisors have to cover a larger number of schools.
- Supervisors have too many administrative tasks that cut down their direct supervision time.
- School principals with few exceptions do not assist General Supervisors in requesting vocational education teachers to meet deadlines.
- General Supervisors report to the Regional Director whereas they have a direct working relationship with the Program Director at the central level. Program Directors need the cooperation of the Regional Director to enforce information requirements.

The problems outlined are the result of other underlying problems, of a wider scope forcing the A.V.T.E. We have included in different parts of this report our recommendations that relate directly to those problems. Among those recommendations we have covered the following areas:

- Low motivation. This is partially a result of low salaries for teachers. We recommend higher salary scale.
- Delays in information. We recommend simplification in the channels of communications.
- Span of control too wide. We recommend increased Regional Supervisors for certain programs.
- Excessive load of administrative tasks. We have recommended the position of Assistant Regional Director of Administration to assume these responsibilities.
- Reporting relationships. We have recommended the position of Assistant Regional Director of Vocational Education to concentrate regional operational responsibility under one executive.

VIII - PERSONNEL EVALUATION AND POLICIES

OVERVIEW

Personnel policies considered directly related to the success in attracting, retaining and motivating qualified professionals are: salary, selection process, promotion, professional leave, recruitment, training, and evaluation. In the following paragraphs we will discuss each one of these areas in A.V.T.E., its present status and appropriate recommendations.

A note should be added before the reader moves further into this section. The Report of the President's Panel of Consultants on Vocational Education clearly indicated the increasing need to develop professionals: "Special attention should be given to the development of highly qualified professional personnel in the many facets of vocational education. The task is large and will require measures considerably beyond the facilities now provided. Professional staffs at universities that provide leadership training will have to be enlarged. Recruitment of candidates for leadership training will have to be expanded and incentives provided in the form of fellowships or other stipends to make it possible for acceptable candidates to undertake the training needed." (7, p. 162)

SALARY

This section is discussed in detail in Chapter IX - Salary Structure.

The study indicated a need for the development of a new salary scale that would place A.V.T.E. in an equal, or better, bargaining position with prospective qualified employees. The new salary grade structure would also tend to decrease the turnover of personnel to other competitive institutions.

Our review indicated that executive personnel are underpaid at A.V.T.E. Under these circumstances it becomes difficult to attract and retain qualified personnel. Underpaid employees will develop an attitude of doing the minimum required amount of work necessary to remain in their positions. Educational research indicates that nonmotivated employees would be operating at above 30% of their capacity, while motivated personnel can operate at about 80% of capacity. A fair level of compensation in itself does not ensure full motivation by the employee, but it is one step in the right direction towards attaining an effective and inspired work force. Some of the other factors that complement a proper salary level are discussed in this chapter.

SELECTION PROCESS

The necessity to fill a teaching position is generally felt first by the principal of a school and/or the supervisor of a program. The Education Law of the Commonwealth of Puerto Rico clearly specifies that the representative of the Secretary of Education at the local level is the Superintendent of a school district. For this reason the principal of a school and/or the supervisor of a program take their needs and recommendations for a vacant position to the Superintendent of the district where the vacancy exists. The Superintendent consults with those individuals related to the position which is vacant and sends his final recommendation to the Director of the Region. The Director of the Region evaluates the recommendation passed to him and if there is an agreement sends a letter to the Program Director with his comments and recommendations.

The Program Director sends it to the A.V.T.E. Administrative Assistant who routes it to the Assistant Secretary for A.V.T.E. for approval and signature. The Assistant Secretary sends it to the Undersecretary of the

Department of Education and from there to the Secretary of Education for final approval. If approved, it goes to the Personnel Office of the Department of Education where the documents are filed. When all the papers are in order at the Personnel Office, a telegram is composed informing the incumbent of his appointment and the telegram is taken back to the Secretary of Education for his signature and then it is sent to the incumbent.

When the documents are sent to the Personnel Office, a check is made to insure the completeness of the requirements for the position and all the necessary legal papers. The time span from the origination of the request for a position until the incumbent is notified can vary from two to eight weeks, sometimes longer.

In the Systems and Procedures Section of this report an account of the recommendations for the Selection Process at ali levels of the A.V.T.E. is explained.

In general, it can be appreciated in the Selection Process, an over-abundance of check-points at different levels of the organization. The number of required channels, before a decision in the selection of an employee is made is too long. The Secretary of Education himself does not need to approve every appointment in the A.V.T.E. He can delegate this authority to the person in charge of the A.V.T.E. The immediate benefit to be derived from this change is the speed-up of the selection process and improved communications between administrative offices and the programs.

PROMOTIONS

A review of the data showed that most of the positions at the central office level required experience in the education field. Most administrators have been promoted from within and certainly, there is nothing wrong with promoting within. However, when use of this concept becomes an

overriding criterion to the exclusion of appropriate experience, then the practice may not be considered desirable. A.V.T.E. generally does not hire administrators for noninstructional position unless the individuals have had teaching experience. Continuation of this policy would preclude the potential employment of many talented people.

It is recommended that the requirements for educational work experience in a vocational area be discontinued for administrative positions not directly related to the teaching or immediate supervision of the programs. This policy would permit qualified personnel without the required teaching experience to be employed by A.V.T.E. It also serves the purpose of allowing for "outsiders" to come to a responsible position if the need arises.

PROFESSIONAL LEAVE

The A.V.T.E. has written policies describing the necessary conditions and requirements to qualify for proffesional leave.

The written policies are divided into five major categories:

. Professional leave without salary
. Professional leave to study with salary
. Military service leave
. Maternity leave
. Political leave

The present written professional leave policies of the A.V.T.E. give a clear picture of the benefits provided to the employees in this area and offer opportunities for furthering the individual's personal development. The opportunity for further education is a successful strategy in attracting and retaining qualified personnel. Emphasis should continue to be placed on rewarding outstanding teachers with the opportunity of increasing their own education. The benefits acquired are not only received by the individual teacher, but they are communicated to the students in the classroom.

We recommend that continued attention be given to "professional leave to study with salary;" the possibility of increasing the number of this type of leaves should be considered. This will necessitate additional funds with benefits to be derived by furnishing the students with well prepared teachers.

Leaves of absence of personnel whether in teaching or administrative functions should be carefully planned and coordinated. A temporary replacement should be assigned to the position before granting a leave of absence to insure the continuity of the teaching process or the administrative function.

RECRUITMENT

There are written policies describing in detail the requirements necessary to apply for an administrative and/or teaching position in the A.V.T.E.

The written procedures include information as to the following:

- Places where applications can be filled and delivered.
- Maximum number of school districts to which applications can be made at the same time.
- Legal documents that must accompany the application.
- Fulfillment of all necessary requirements for desired position.

There is a roster of all eligible applicants, in order of merit, who have the appropriate teaching certificate to occupy a specific position. A second roster exists for all individuals that do not have the teaching certificate.

One of the recruitment problems facing the A.V.T.E. is the scarcity of interested and qualified applicants; in considering the reasons for unfilled positions Program Directors ranked the lack of qualified candidates as being one of the main recruitment problems. This problem is further aggravated by uncompetitive salary levels, and it is discussed in detail in Chapter IX - Salary Structure.

TRAINING

Our review indicates that the A.V.T.E. provides in-service training for vocational teachers. However, there is a need for a more comprehensive planned program of in-service training for all vocational teachers. This situation has been stated by several of the Program Directors who are faced with the difficulties of keeping a qualified, up-to-date teaching staff.

The rapid changing technologies emphasize the importance for in-service training of teachers. This need goes beyond the summer courses required for certification; it is concerned with professional and technical education which should be geared to meet the requirements of Puerto Rico's Vocational Education Program.

Low salaries present an additinal problem since teachers work extra hours to supplement their regular income. Under these conditions, the teacher is reluctant to take leave to undergo training even though he may recognize that this is necessary if he is to maintain high standards of professional competence.

Training Program

The amount of training offered by A.V.T.E. is limited to two programs:

. Professional leave to study with salary

. Summer school

The first program was explained under the heading of Professional Leave in a previous section of this chapter. It was recommended that the number of leaves in this category be enlarged and better planned to insure the continuity of the programs.

The second program, summer school, applies only to those teachers that are interested in subject areas for which the University of Puerto Rico offers courses.

Recommendations

A considerable number of A.V.T.E. teachers can improve their teaching techniques. It is a fact that at times A.V.T.E. teachers do not have enough experience in methods and, or psychology of adolescents and young adults. The teacher will generally know his area of expertise, but is unable to communicate his knowledge to the students.

It is recommended that the A.V.T.E. establishes its own training program with the following concepts in mind:

1. The training program will concern itself with the development of teachers to better handle the classroom situation. The two areas to be emphasized in the training are:

   . Techniques and methods for effective communication of knowledge.

   . Techniques to understand and properly handle adolescents and young adults.

2. The training could also be expanded to include "refresher courses" in technical areas. The purpose of the refresher courses would to be keep the teachers technologically abreast of changes in their specialized areas.

Methods of providing an effective in-service experience can be:

1. Workshops of one to two weeks

2. Seminars and study at the central level of A.V.T.E.

3. Seminars in leadership training

4. Seminars in management of time

5. Lecture series by top scholars

The benefits to be derived from a well-conducted training program far outweighs the costs of implementing such a program.

3. Professional leaves of absence for study should be granted only when a qualified substitute is available. This procedure would preclude the possibility of interrupting a program due to extended vacancies.

EVALUATION

There are no written policies relating to the evaluation of personnel in the A.V.T.E.

Formal written procedures should be adopted indicating who will do the evaluation, how the evaluation will be used, the basis upon which the evaluation will be made and frequency of the evaluation. The subjective judgement of an individual should be minimized to improve the accuracy of the evaluation process.

To make full use of the evaluation system, as a tool for employee motivation and personal improvement, the rational basis of the evaluation procedures should be explained in detail.

It is recommended that a formal written evaluation procedure be developed and implemented in the A.V.T.E. This procedure can be used to motivate individuals with low morale and as a measure of performance.

IX - SALARY STRUCTURE

The rapid growth of the Area of Vocational and Technical Education has created a critical shortage of skilled management personnel at top levels. Individuals who are drawn to these programs often posses interests and experiences relevant primarily to technical knowledge content and secondarily to program management and administration. Thus, the A.V.T.E. tends to be administered, at the second level of responsibility, by individuals who have been schooled in service related disciplines, such as education and social sciences. Consequently, there is a need for increased attention to management skills required to effectively deploy human and financial resources.

There is also a shortage of technically qualified teachers to meet the increasing demands of the A.V.T.E. Teachers in Vocational and Technical Education are generally highly demanded by other institutions. Due to the nature of their specialized skills, the supply of capable teachers is limited, while the demand continues its upward trend. Universities, businesses and the general industry are interested in the services provided by these individuals and constitute a major area of competition.

This section of the study makes reference to the salary structure presently in operation and its effects in the overall functioning of the A.V.T.E.

EXECUTIVE POSITIONS AT CENTRAL LEVEL

Consider the plight of a supervisor and/or a principal with a background in education who is promoted to Director of a program; consequently, he has the responsibility of the overall direction of a specific program area. The kind of problems with which this individual is now faced and the midst of overwhelming administrative demands are areas with difficult effective solutions for the short run.

This situation is not uncommon; it is the rule rather than the exception. In this environment, management training and personnel development are inextricably a part of day-to-day administrative operations. Consequently, the task of attracting and developing management capability requires the utmost in dedication and perseverance.

The present salary structure of the A.V.T.E. is not competitive with comparable responsibilities and level of supervision in the general industry. It is estimated that executive positions on an average basis are approximately 25% below industry levels. There is a high demand for competent managerial and administrative personnel but present salary ranges constitute a problem for obtaining and retaining desired personnel.

An example of this situation is demonstrated in the case of an employee not desiring a promotion to the next level in the organization structure due to a decrease in salary attached to the new position. The increased responsibility and authority appear not to be properly recognized. There is no incentive for that individual to accept increased responsibilities and duties without increased salary.

Salary levels can also be seen as being a contributing factor in the unfilled positions. Examples are: Director of Technical Education, Supervisor of Technical Education, Director of Trades and Industries. The number of vacant positions at the central level is not any larger due to strong loyalty and dedication in the part of the employees. Seniority is also a factor that seems to have an influence in the loyalty to the A.V.T.E.; the average number of years of service of Department Heads at the central level is seventeen years. A.V.T.E. must ensure that its employees are motivated and that their jobs are not turned into rutinary assignments without challenge, recognition and future prospects for development. Therefore, the A.V.T.E. should closely review its

present salary administration program along with all aspects of employee motivation. The results of this review should be compared to present practices of all major institutions which compete with A.V.T.E. for personnel.

It is recommended that A.V.T.E. develops a new salary scale which will enable them to successfully compete with other government agencies, industry, business and universities in attracting and retaining qualified managerial and administrative personnel.

TEACHING POSITIONS AT SCHOOL LEVEL

In certain program areas of A.V.T.E., a requirement previous to becoming a teacher is work experience for a minimum of three years. Practical experience in the trade to be taught is sought by Program Directors on prospective candidates. In order to attract and retain qualified specialized personnel from the industry, salary levels must be at least competitive and offer good prospectives. At the present time, the salary structure for vocational education teachers is on the average higher than for academic teachers. However, this is not sufficient and industry, businesses and universities have higher salary scales allowing them to attract A.V.T.E. teaching personnel to their institutions.

The current salary scales of A.V.T.E. include only one classification for certain supervisory levels. There should be several classifications within each scale to consider differences in experience, seniority, educational background performance and any other additional factors considered important in determining an individual's salary level within a salary grade. An example of the above described situation is found at the Supervisors and Curriculum Technicians levels where only one classification is given for all those positions, creating dissatisfaction among those affected adversely.

RECOMMENDATIONS

It is recommended that A.V.T.E. develop a salary structure taking into account two main considerations:

1. The salary levels of the teachers should be higher to enable A.V.T.E. to attract capable specialized teachers and also to retain those teachers that are already in the system. The salary levels should be at least comparable and preferably slightly higher than the salary levels of the competition, businesses, universities and government agencies.

2. The new salary structure should provide enough flexibility within each salary grade level, to allow for individuals with the same positions and with different performance records and backgrounds to be rewarded differently.

X - PERSONNEL REQUIREMENTS

Central administrative staff members have good background educationally and occupationally. The administrative staff makes a continuous effort to keep up-to-date in the field of Vocational Education Administration. Some unit administrators were actively enrolled in job-related courses at the university level. Others, including regional personnel demonstrated great interest for participation in professional seminars, conferences and other short courses which would give them greater depth in their field of work.

Professional improvement efforts, such as those described in the preceding paragraph can go far in improving the administrative effectiveness of the executive and supervisory personnel assigned to the Vocational and Technical Education Program. However, this effectiveness is not solely a function of the individual administrator or supervisor, rather it is a function of organizational structure, systems and procedures, plans, information systems and staffing levels in combination with the individual. It is with the element of staffing levels that this section is concerned.

During our review we examined the uppor echelon staffing requirements at central and regional level. Although the scope of this phase of our review did not extend to the clerical, secretarial, or teaching levels, we did observe some characteristics of this level of staffing and include recommendations for possible improvement in this area.

Based on our review of present staffing and on the recommended organizational structure shown on Page IV-1, we recommend that the following personnel levels be established within the Vocational and Technical Education Program at central and regional levels.

Following is a list of recommended staffing levels for the recommended organizational units:

CENTRAL ORGANIZATION

1. Office of the Assistant Secretary for Vocational and Technical Education:

   . The Assistant Secretary of Vocational and Technical Education

   . The Assistant to the Assistant Secretary of Vocational and Technical Education

   . An executive office with two professionals as follows:

      - Executive Assistant

      - Assistant of Programs

      - Four secretaries

2. Office of the Head of Interagency Relations and Promotion:

   . The Head of Interagency Relations and Promotion

   . Two Interagency Coordinators

   . One Secretary

3. Office of the Director of Instruction:

   . The Director of Instruction

   . One secretary (individual programs are shown under program level)

4. Office of the Head of Administration:

   . The Head of Administration

   . A Construction and Permanent Improvements Coordinator

   . An Office Services Coordinator

   . A Personnel Affairs Coordinator

   . An Expediter for Purchases

   . An Accountant

   . A Secretarial Pool Supervisor

   . Twenty-one Secretaries (secretarial pool)

5. Office of the Head of Information Systems:

. The Head of Information Systems

. The Supervisor of Statistical Services

. The Supervisor of Systems and Procedures

. A Coordinator for Reports and Information

. Two Statistics Technicians

. Two Secretaries

6. Office of the Head of Planning, Budgeting and Evaluation:

. The Head of Planning, Budgeting and Evaluation

. A Budget Technician

. A Planning Technician

. A Supervisor of Evaluation

. Two Secretaries

7. Office of the Head of Vocational Research and Curriculum Development:

. The Head of Vocational Research and Curriculum Development

. A Supervisor of Research

. A Supervisor of Curriculum Development with a staff of curriculum technicians to function as a pool. The number of Curriculum Technician positions in this pool would be equivalent to the number now dispersed among individual programs. Instead of working specifically for one program, the Curriculum Technicians would be used as internal consultants to be allocated to instructional programs on an "as needed" basis.

. Two Educational Researchers

. Two Assistant Educational Researchers

. Two Secretaries

8. Office of the Head of Professional Training:

. The Head of Professional Training

. Two Training Personnel for Teaching Methods

. Two Coordinators

. One Secretary

PROGRAM LEVEL

Program Name	Personnel Requirements by Position						
	Prog. Dir.	Asst. Prog. Dir.	Area Gen. Sup.	Regional Gen. Sup.	Coord.	Staff	Secretaries
Industrial Arts	1	2	2	13	13		2
Health Occupations	1	1	1	3	1		2
Vocational and Ind. Education, T. & I., M.D.T.A. and W.I.N.	3	6	5	24	7		4
Technical Education	1	2	-	-	-		1
Vocational Agriculture	1	3	4	6	-		2
Home Economics Education	1	3	2	13	-		2
Business Education	1	2	4	12	12		2
Distribution and Marketing	1	2	2	6	7		1
Vocational Guidance	1	2	3	13	-		2
Special Programs	1	3	-	-	-		2

REGIONAL LEVEL

1. Office of the Assistant Regional Director for Vocational Education:

. The Assistant Regional Director of Vocational and Technical Education

. The required Regional General Supervisors. The latter depend on the number of programs being offered in the region and the number of teachers engaged in each Program.

. The required Regional Industrial Coordinators

. One Secretary

2. Office of the Assistant Regional Director of Administration. This Office should consist of:

- The Assistant Regional Director of Administration
- A Budget and Statistics Technician
- The Coordinator for Purchasing, Maintenance and Construction of New Facilities
- Coordinator for Office Services and Personnel with direct supervision over the secretarial pool

3. Office of Community Relations and Promotion:

- This Office will be directly attached to the Office of the Regional Director. It should consist of a Coordinator for Community Relations and Promotion and a Secretary.

XI - BUDGET REQUIREMENTS

This section quantifies the recommended organizational structure in terms of estimated additional budget dollars which would be required to implement the proposed organization. The following is a summary in tabular form of the present and proposed positions, staffing levels and estimated budget requirements for the central and regional levels of the Area of Vocational and Technical Education.

ADDITIONAL BUDGET REQUIREMENTS SCHEDULE

CENTRAL LEVEL

Position Title	Number of Employees: Present Org.	Number of Employees: Proposed Org.	Number of Employees: Increase (Decrease)	Basic Annual Salary	Additional Budget Requirements
Assistant Secretary	1	1	-	$ 15,600	$ -
Assistant to the Assistant Secretary	-	1	1	13,500	13,500
Executive Assistant	-	1	1	11,000	11,000
Assistant for Programs	-	1	1	10,200	10,200
Secretarial Personnel	4	4	-	-	-
Subtotal	5	8	3		34,700
Director of Instruction	1	1	-	13,000	-
Secretarial Personnel	1	1	-	-	-
Subtotal	2	2	-		-
Head of Administration	1	1	-	12,000	-
Construction and Permanent Improvements Coordinator	1	1	-	10,200	-
Office Services Coordinator	-	1	1	10,200	10,200
Personnel Affairs Coordinator	1	1	-	10,200	-
Expediter for Purchases	-	1	1	9,600	9,600
Accountant	1	1	-	7,200	-
Secretarial Pool Supervisor	-	1	1	5,400	5,400
Secretarial Pool Personnel	-	18	18	3,215	61,470
Subtotal	4	25	21		86,670
Head of Information Systems	-	1	1	12,000	12,000
Supervisor of Statistical Services	1	1	-	9,420	-
Supervisor of Systems and Procedures	-	1	1	9,420	9,420
Coordinator for Reports and Information	1	1	-	9,420	-

Position Title	Number of Employees: Present Org.	Proposed Org.	Increase (Decrease)	Basic Annual Salary	Additional Budget Requirements
Statistics Technician	2	2	-	$ 6,300	$ -
Secretarial Personnel	2	2	-	3,415	-
Subtotal	6	8	2		21,420
Head of Planning, Budgeting and Evaluation	1	1	-	12,000	-
Budget Technician	1	1	-	7,500	-
Planning Technician	-	1	1	7,500	7,500
Supervisor of Evaluation	-	1	1	9,420	9,420
Secretarial Personnel	2	2	-	3,415	-
Subtotal	4	6	2		16,920
Head of Professional Training	-	1	1	10,800	10,800
Training Personnel	1	2	1	7,800	7,800
Coordinating Personnel	-	2	2	7,200	14,400
Secretarial Personnel	-	1	1	3,415	3,415
Subtotal	1	6	5		36,415
Head of Interagency Relations and Promotion	-	1	1	10,800	10,800
Interagency Coordinator	1	2	1	6,900	6,900
Secretarial Personnel	-	1	1	3,415	3,415
Subtotal	1	4	3		21,115
Head of Vocational Research and Curriculum Development	1	1	-	12,000	-
Supervisor of Research	1	1	-	9,420	-
Educational Researcher	2	2	-	9,000	-
Supervisor for Curriculum Development	1	1	-	7,620	-
Curriculum Technician	1	14	13	7,320	95,160
Assistant Educational Researcher	2	2	-	8,520	-
Secretarial Personnel	2	2	-	3,415	-
Subtotal	10	23	13		95,160

PROGRAMS:

Position Title	Number of Employees: Present Org.	Proposed Org.	Increase (Decrease)	Basic Annual Salary	Additional Budget Requirements
Industrial Arts:					
Director	1	1	-	$ 12,000	$ -
Assistant Director	3	2	(1)	10,800	(10,800)
Area General Supervisor	1	2	1	8,820	8,820
Regional General Supervisor	7	13	6	8,220	49,320
Regional Coordinator	8	13	5	7,620	38,100
Staff	2	-	(2)	7,320	(14,640)
Curriculum Technician	2	-	(2)	7,320	(14,640)
Secretarial Personnel	3	2	(1)	3,415	(3,415)
Subtotal	27	33	6		52,745
Health Occupations:					
Director	-	1	1	12,000	12,000
Assistant Director	1	1	-	10,800	-
Area General Supervisor	1	1	-	8,820	-
Regional General Supervisor	-	3	3	8,220	24,660
Regional Coordinator	-	1	1	7,620	7,620
Staff	1	-	(1)	7,320	(7,320)
Secretarial Personnel	1	2	1	3,415	3,415
Subtotal	4	9	5		40,375
Vocational Industrial Education, M.D.T.A., W.I.N. and T. & I.:					
Program Director	1	1	-	12,000	-
Subprogram Director	3	2	(1)	11,400	(11,400)
Assistant Director	2	6	4	10,800	43,200
Area General Supervisor	4	5	1	8,820	8,820
Regional General Supervisor	7	24	17	8,220	139,740
Regional Coordinator	7	7	-	7,620	-
Staff	1	-	(1)	7,320	(7,320)
Curriculum Technician	1	-	(1)	7,320	(7,320)
Secretarial Personnel	16	4	(12)	3,415	(40,980)
Subtotal	42	49	7		124,740
Technical Education:					
Director	1	1	-	12,000	-
Assistant Director	1	2	1	10,800	10,800
Area General Supervisor	-	-	-	8,820	-
Regional General Supervisor	-	-	-	8,220	-
Regional Coordinator	-	-	-	7,620	-
Staff	-	-	-	7,320	-
Secretarial Personnel	1	1	-	3,415	-
Subtotal	3	4	1		10,800

Position Title	Number of Employees: Present Org.	Proposed Org.	Increase (Decrease)	Basic Annual Salary	Additional Budget Requirements
Vocational Agriculture:					
Director	1	1	-	$ 12,000	$ -
Assistant Director	3	3	-	10,800	-
Area General Supervisor	3	4	1	8,820	8,820
Regional General Supervisor	6	6	-	8,220	-
Regional Coordinator	-	-	-	7,620	-
Staff	1	-	(1)	7,320	(7,320)
Curriculum Technician	2	-	(2)	7,320	(14,640)
Secretarial Personnel	3	2	(1)	3,415	(3,415)
Subtotal	19	16	(3)		(16,555)
Home Economic Education:					
Director	1	1	-	12,000	-
Assistant Director	3	3	-	10,800	-
Area General Supervisor	2	2	-	8,220	-
Regional General Supervisor	7	13	6	8,220	49,320
Regional Coordinator	-	-	-	7,620	-
Staff	2	-	(2)	7,320	(14,640)
Curriculum Technician	2	-	(2)	7,320	(14,640)
Secretarial Personnel	4	2	(2)	3,415	(6,830)
Subtotal	21	21	-		13,210
Business Education:					
Director	1	1	-	12,000	-
Assistant Director	4	2	(2)	10,800	(21,600)
Area General Supervisor	1	4	3	8,820	26,460
Regional General Supervisor	6	12	6	8,220	49,320
Regional Coordinator	12	12	-	7,620	-
Staff	2	-	(2)	7,320	(14,640)
Curriculum Technician	2	-	(2)	7,320	(14,640)
Secretarial Personnel	3	2	(1)	3,415	(3,415)
Subtotal	31	33	2		21,485
Distribution and Marketing:					
Director	1	1	-	12,000	-
Assistant Director	-	2	2	10,800	21,600
Area General Supervisor	2	2	-	8,820	-
Regional General Supervisor	6	6	-	8,220	-
Regional Coordinator	7	7	-	7,620	-
Staff	1	-	(1)	7,320	(7,320)
Curriculum Technician	1	-	(1)	7,320	(7,320)
Secretarial Personnel	2	1	(1)	3,415	(3,415)
Subtotal	20	19	(1)		3,545

Position Title	Number of Employees: Present Org.	Proposed Org.	Increase (Decrease)	Basic Annual Salary	Additional Budget Requirements
Vocational Guidance:					
Director	1	1	-	$ 12,000	-
Assistant Director	3	2	(1)	10,800	$ (10,800)
Area General Supervisor	2	3	1	8,820	8,820
Regional General Supervisor	7	13	6	8,220	49,320
Regional Coordinator	-	-	-	7,620	-
Staff	3	-	(3)	7,320	(21,960)
Curriculum Technician	3	-	(3)	7,320	(21,960)
Secretarial Personnel	3	2	(1)	3,415	(3,415)
Subtotal	22	21	(1)		5
Special Programs:					
Director	1	1	-	12,000	-
Assistant Director	-	3	3	10,800	32,400
Area General Supervisor	2	-	(2)	8,820	(17,640)
Regional General Supervisor	-	-	-	8,220	-
Regional Coordinator	-	-	-	7,620	-
Staff	-	-	-	7,320	-
Secretarial Personnel	2	2	-	3,415	-
Subtotal	5	6	1		14,760
Regional Level:					
Assistant Reg. Director for Vocational - Tech. Education	-	6	6	11,400	68,400
Subtotal	-	6	6		68,400
Assistant Reg. Director of Administration	1	6	5	11,400	57,000
Budget and Statistics Coordinators	-	6	6	7,620	45,720
Purchasing, Maintenance and Construction Coordinators	1	6	5	7,620	38,100
Office Services and Personnel Coordinator	1	6	5	7,620	38,100
Subtotal	3	24	21		178,920
Grand total	230	323	93		$ 824,830

XII - COORDINATION WITH OTHER GOVERNMENT AGENCIES

The A.V.T.E. offers programs in some areas where other government agencies such as the Department of Labor, the Department of Health, the Department of Commerce, the Department of Public Works and the Department of Agriculture, also provide vocational education services. This does not imply duplication of efforts; however, there exists the possibility of closer coordination with those agencies to maximize services and minimize costs in related program areas. As an example, this chapter illustrates some relations between the Department of Health and the Department of Agriculture with the A.V.T.E. in common programs.

HEALTH OCCUPATIONS

The A.V.T.E. has a program directed to the training of practical nurses, first-aid personnel, pharmacist's assistants and other health related professions.

The Department of Health has an operating program referred to as "Human Resources;" this program is responsible for the administration and implementation of programs that supply qualified health related personnel to the Department.

We recognize the general needs of both Departments to have qualified available personnel; however, the efforts should be directed to strengthen the coordination of resources of both Departments for training of personnel in health related occupations.

This will require an in-depth study of the needs, present facilities, binding contracts and future expectations of both departments.

VOCATIONAL AGRICULTURE

Examples of related work in the agricultural sector are the A.V.T.E. Agricultural Training Program and the vocational personnel in charge of work areas of the Department of Agriculture.

Agricultural Training Programs

The A.V.T.E. has a program of Vocational Agriculture that provides systematic training to secondary students and to young and adult farmers. The objectives of the Program are as follows:

1. Training in rural school units and high schools to:

   a. Create skilled farmers

   b. Create skilled farm technicians to work as farm service employees

2. Training in the specialized agricultural schools in the following areas:

   a. Operating and servicing of farm machinery

   b. Agriculture, horticulture and coffee farming

3. Training of already established farmers as farm administrators to increase their efficiency and field on their business.

4. Training high school seniors and juniors in off-farm occupations such as: selling fertilizer, selling agricultural machinery, etc.

There appears to be some duplicity of effort in this area due to the fact that the Department of Agriculture has programs and objectives which overlap with those of the A.V.T.E.

Related Programs in the Department of Agriculture

The Department of Agriculture in its efforts to provide better services to the farmers began a decentralization of its functions. The geographic regions of the Department of Agriculture were subdivided into five agricultural zones and each agricultural zone was further subdivided into work areas. Each work area was assigned to an agricultural engineer who became the direct contact with all the farmers in his area. Each work area was assigned

to an agricultural engineer who became the direct contact with all the farmers in his area. Each work area was assigned personnel from the different government agencies. For example, in the forty-eight work areas of the San Juan Region the agricultural engineers were employees of the following agencies:

. Department of Agriculture - Eight (8)

. Agriculture Extension Service - Twenty-seven (27)

. A.V.T.E. - Eight (8)

. Program of Isolated Communities - Five (5)

By the above example we wish to point out the different agencies which provide services in the agricultural area.

We recommend that the A.V.T.E. investigate and analyze the possibility of strengthening the coordination of efforts and resources of all government agencies involved to more efficiently provide for the needs of the agricultural sector.

XIII - LEGISLATION

FINANCIAL AID

The Area of Vocational and Technical Education offers financial help to students enrolled in Work Incentive Program and Neighborhood Job Corps Program. Students enrolled in other programs offered by Vocational-technical Education do not receive financial aid from the A.V.T.E. A number of the students enrolled in the A.V.T.E. programs must sacrifice part or all their wages to attend vocational school.

A large percentage of the student population enrolled in the programs come from low income families and their present contribution to the household income is of primary importance. The potential students will not have the parents support to engage in further vocational training. The A.V.T.E. could provide an invaluable service to the community by providing a larger sector of the vocational student population with sufficient financial aid to insure participation in a Vocational-technical Education Program. The incentive and motivation to learn should increase with better financial assistance.

We recommend to organize an appropriate financial aid system where students priorities and needs are established. The developed procedures must insure confidence and reliability in the system to operate effectively.

SALARY STRUCTURE

In Section VI of the report we recommend the development of a new salary structure for administrative personnel and teachers. The Government of Puerto Rico determines the salary to be paid to the secretaries of the different government agencies.

The present salary of $25,000 paid to the Secretary of the Department of Education is not commensurate with his authority and responsibility and it establishes indirectly additional salary ceilings for the executive personnel

within the Department. Executive positions in the Department of Education are not competitive with private industry, universities and other institutions.

We recommend a review of the overall salary administration program of the Department of Education.